IMPSEC 5000

USER'S MANUAL

CE

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INTRODUCTION

Thank you for the trust you placed in us and in the equipment you just acquired. With it you will be able to bring the most **advanced technology** in **electro-aesthetics** and to introduce a tool that will become essential to secure good results.

This equipment provides you with an advanced option of body remodelling. User-friendly, this equipment has been conceived to fully satisfy the requirements of the most demanding users. This machine has been subject to tests on different subjects and facial and corporal areas to guarantee its quality and results.

Our company also provides practical and advanced courses in facial treatment technique. This new service aims at giving the user the best knowledge possible in order to obtain high quality results. Information on our courses is available in our web pages www.ema.es

Before starting up the equipment, please **READ CAREFULLY this MANUAL**. Failing to do so could turn out to be dangerous and provoke damage to third parties.

We invite you to contact us or our distributor for any doubt or query. We would be delighted to assist you.

Yours sincerely,

The Management

SAFETY STANDARDS

This equipment complies with the **safety standards** in force at the time of manufacturing. However, the following safety recommendations should be observed:

1. Before handling the equipment, read carefully this manual.

2. Do **not** use on customers with a **pacemaker or any other active implant**, for the risk of interference with this device.

3. This appliance produces low frequency currents. The **heart** must **not** be found on the path of the galvanic current.

4. There must not be **metallic elements** (e.g.: osseous prosthesis) and/or cables in the area subject to the treatment.

5. Always place the accessories when the power button indicates **zero**.

6. This equipment must be used following the instructions of **qualified personnel** (for example, graduated beauticians).

7. The client's electrical safety is ensured by a double insulation from the mains. Do not however connect to a socket deprived of an earth connection.

WARNING:
This equipment is not a medico-sanitary product, not aiming at diagnosing, controlling, monitoring or relieving any disease, injury or deficiency.
Always use cosmetic products complying with the law in force.
In case of doubts concerning the application on a specific client, consult a specialist.

GENERAL POINTS

IMPSEC 5000 is a passive exercise appliance based on a low frequency alternating current that combines in one machine the simultaneous movement with the sequential movement of toxin elimination. IMPSEC 5000 has eight outlets allowing to connect 16 plates in corporal mode and four in facial mode. A full informative light system indicates the passing of current and allow to adapt the electrical movement to the sensitivity and characteristics of each person. User-friendly, it personalises each treatment and gives maximum comfort to the customer throughout the session.

The variety of electric signals makes bodywork treatments easier both on superficial and deep plans and constitutes an ally for body remodelling treatment. The improvement of muscle tonus helps the circulation, valuable qualities of the beauty treatment with IMPSEC 5000 for people with venous problems.

The intelligent combination of these two currents contributes to the high level of the results. While passive gymnastics work at muscle level, isometric or sequential contraction helps eliminating naturally the toxins generated during passive gymnastics. Incorporating both currents in the same apparatus makes of IMPSEC 5000 the ideal substitute to conventional pressotherapy equipments, with a double use in a single machine.

The complementarity of the signals gives the necessary stimulus to carry out various treatments among which those linked with peripheral circulatory troubles, body remodelling and toxin elimination.

TECHNICAL FEATURES

- Equipment of simultaneous and sequential movements.
- Independent power control for each outlet.
- Two outlets for the face and eight for the body.
- Common frequency power control from 100 to 300 Hz.
- Common contraction button
- Common relaxation button
- Supply voltage: 230 V (110V on request)
- Input: 45 W
- Weight: 8 Kg
- Dimensions: 420 x 320 x 140 mm
- Ground connection: provided with a ground connection through its mains cable. Connect to installations equipped with that connection.
- Safety: it remains insulated from the mains through a coil transformer.

This symbol indicates an established risk. The voltage applied to the outlet is over 10 Khz. This symbol aims at dissuading the use of the apparatus by personnel non qualified or newly introduced to its use, warning of the possible adverse effects that an improper use could provoke on the client.

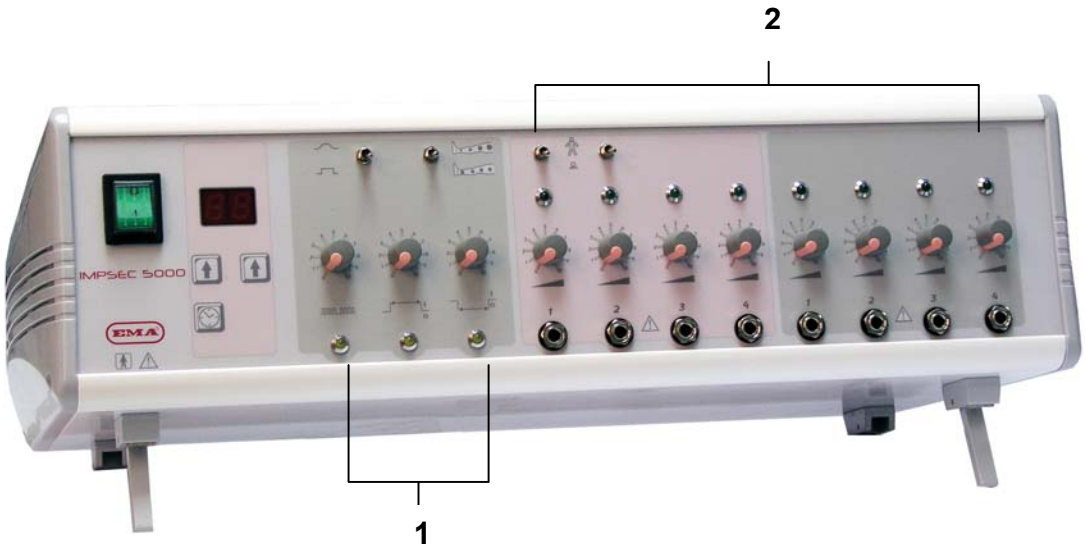
This equipment provides a special protection rate against electrical discharge, particularly in relation with the authorised leakage current and the reliability of the earth connection. However, the part applied to the client is insulated from all other parts of the equipment with a protection rate higher than that established for the classification of the machine as BF type.

CE

PROTECTION SYSTEM AGAINST MAINS FAILURE

This machine includes a protection system against mains failure. In case of power outage, the machine will stop. Once the current has been restored, the protection circuit will be activated. The machine will then block the outlets, interrupting the treatment, and the orange pilot light will light up.

To resume the treatment, put all power controls to zero. Once the protection circuit has been deactivated, the orange pilot light (11) will go out and the green lights (10) will light up again.



ACCESSORIES

REF.	DESCRIPTION	QTY
-5111058	Oval silicone plate 1 inlet	16
-5111059	Oval rubber plate 4 inlets	4
-5151060	Red-black banana cable set	8
-5111029	Grey elastic band 40 cm	2
-5111030	Grey elastic band 60 cm	4
-5111028	Grey elastic band 80 cm	2
-210056	Normal mains cable	1

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	5111028	Grey elastic band 80 cm	2
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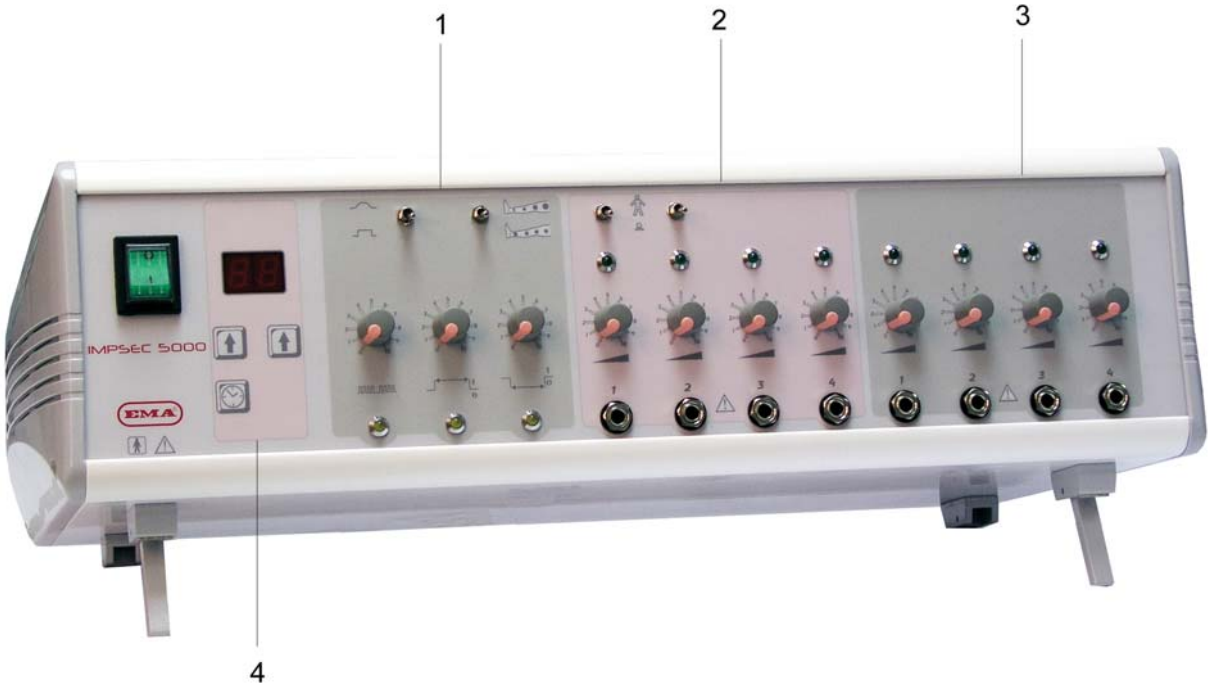
GENERAL DESCRIPTION OF THE CONTROLS



IMPSEC 5000 includes 4 different windows.

1. **FIRST WINDOW**: This window includes the elements common to all the outlets of the equipment.

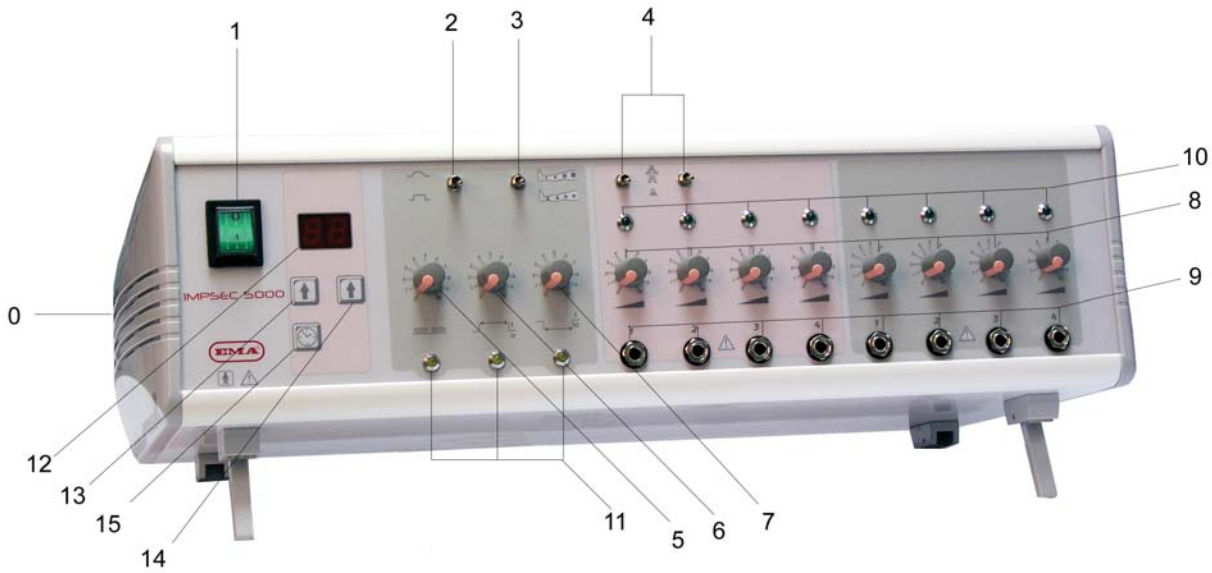
2. **SECOND WINDOW**: This window has two basic functions:

    - First, it includes **two outlets** allowing to carry out the treatment for **facial** and **body** tissues. These outlets are the first two and are located just below these switches. The meters controlling them can be found vertically (each meter controls the red and black outlets just below).

    - Secondly, this window **identifies** a member (arm or leg) during the elimination toxin program. The emptying process is achieved using these four connections in each member connected.

3. **THIRD WINDOW**: This window is used **exclusively** for **body** treatments. Each meter controls the red and black outlets located below. The operation of the outlets for the body is the same as for the potentiometers of the second window.

4. **FOURTH WINDOW:** This window allows visualizing the duration of the treatment and establishing the tens and units of minuts



The on/off switch and the fuse are found at the back of the machine.

0. Fuse

- The fuse protects the appliance. If necessary this element must be replaced by another with the same characteristics. If possible, call technical service.

1. Main **switch**.

- The main switch is the ground connection that connects the appliance to the power supply (110/220 V). The mains cable is connected to the contiguous base. Before turning on the switch, make sure that all power controls are on zero, BEYOND THE CLICK of the incorporated switch (8). Once the verifications are made, turn on the main switch. The CONTRACTION light indicators will work after a few seconds, according to the program chosen with switch 3 (NORMAL or SEQUENTIAL).

2. Main **switch** for **contraction** control in *mild/intensive* of the current of movements.

- This switch increases the power shown on each output control of the current of movements. On ***mild***, the spectre is included between 1 and 10. If the intensity control is on **intensive***,* it will be included between 11 and 20. The autonomy of each output has

a double intensity with this switch in order to adapt to the requirements of higher contractions.

- This switch orders the transmission of current to the customer when the INTENSIVE or MILD options are activated through the 8 outlets (9). It is possible to check the parameters of the selected current using the indicators:

    1. The type of **program** selected, NORMAL or SEQUENTIAL (3),

    2. And the **characteristics** of the current (the time of FREQUENCY (5), CONTRACTION (6) and RELAXATION (7). If button No 2 is set on INTENSIVE, the equipment will provoke a greater effort from the muscle and the contractions will be somewhat sudden. In MILD, contractions will be more progressive.

3. **Button** to select the NORMAL or SEQUENTIAL program.

A. NORMAL PROGRAM:
B. SEQUENTIAL PROGRAM:

This switch enables to choose between two distinct programs:

- **Normal**: In this program, the 8 outlets of the appliance provoke the contraction and relaxation at once. The program is conceived to create the **simultaneous contraction** of all the selected muscles. The time of contraction and relaxation are chosen on buttons 6 and 7.

- **Sequential**: In this program, the 8 outlets are divided in two groups of 4. The left side can be treated with one group and the right with the other group. We can observe the operation on the indicators and modify the contraction and relaxation time using buttons 6 and 7. This is conceived to provoke the **progressive contraction** of each extremity of the body more similarly to natural movements.

4. **Facial**/**corporal** selector.

- Only the first two outputs (4) are provided with this button. In *corporal* position, these two outlets are identical to the other six. On *facial*, they become micromovements and reduce the power of the maximum movement by half in corporal mode.

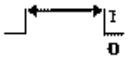
- **In FACIAL position**, the power of the movement is reduced by half to adapt to the facial muscles. Thanks to this intensity limitation, the movement coming from these outputs is suitable for facial treatments. The action of these controls is limited to the first two outputs

- **In CORPORAL position**, this output works similarly to the rest.

5. **Frequency** main **switch** for movement currents (*comfort* button by choosing the **frequency**).

- This button controls the contraction frequency of the movement of the current to adapt the current to the sensitivity of the client and to give him the most pleasant sensation possible.

6. **Contraction** setting button



- This button sets the duration of movement contraction, longer or shorter. This contraction time can be set observing the indicators (10), since its control is independent from other buttons. A lit indicator shows that the muscle is contracted.

- Controls the time during which the muscle remained contracted, that is to say, in tetany. Mostly used for bodywork.

7. **Relaxation** setting button.

- This button controls the time of relaxation, that is to say the duration of the pause between contractions. This time can be set observing the indicators (10), since its control is independent from other buttons. The indicator turned off shows that the muscle is at rest.

- Controls the absence of contraction. Mostly used for toxin elimination.

8. **Power** control for the **movement** current.

- Before connecting the plates to the client, check that all controls are on ZERO, fully turned anticlockwise until hearing a "click".

Once the plates are located and the position of the other buttons selected (PROGRAM, CONTRACTION, RELAXATION), slowly turn the power control clockwise until getting an appropriate muscle contraction. The position of this control depends on the muscle treated, the position of the plates and the CLIENT. Generally, clients with a lot of subcutaneous fat need higher powers. Once the power is set, the client's comfort will be improved using the FREQUENCY control 5.

- In the first two outlets, this button controls the micropulse current if the selector (8) is en *facial* position ( ).

9. **Connectors** for the passive exercise outlets.

- Each pair of plates must be connected to its corresponding outlet. The plates must be located according to the treatment.

10. **Indicator** of the contraction rhythm movement.

- These eight indicators (10) are distributed on each power control on each outlet. Regardless of the position of each plate, the indicator remains lit during the contraction time programmed. The indicator will light up when the muscle is contracted and remained off when the muscle is at rest.

11. **Safety light**.

If the orange pilots lights up, this means that there is a problem. (*Safety circuit*: usually solved by placing all potentiometers on zero and turning off and on the machine)

12. **Display** for the timer.

13. Increasing the **tens** of minutes.

14. Increasing the **units** of minutes.

15. **Button** for **activating** or **pausing** time

START UP

1. Before starting any treatment, check that the main switch of the equipment (1) is off and that all output power controls (9, 10) are on zero, beyond the *click* of the incorporated switch. It is very important to follow this procedure before placing the plates on the client, for if all controls are not on **zero** and the plates are put, the client may feel a sensation of tear in the muscles when turning on the main switch, because of the uncontrolled transmission of the electric signal. Such an imprudence may also lead to damage them the more the button of the relevant outlet is turned towards the right.

    - If the orange pilot lamp (14) lights up, check that all potentiometers are on zero. Otherwise put them in that position.

2. Select the type of treatment you wish to perform and connect the plates to the client, according to the treatment chosen, adapting them with the relevant elastic bands.

For passive gymnastics:

a. **Facial option:** the movement is programmed for treatments in the facial tissues and muscles.

b. **Corporal option:** the movement is programmed for treatments in the body tissues and muscles.

The treatment area also determines the application format of the **electrodes**.

- Mobile electrodes or fixed plates – smaller than those used for the body – can be used for **facial** treatments.

- For **body** treatments, we use oval rubber plates.

- In one exclusive session of **passive gymnastics**, it is possible to use only the rubber plates with a thin layer of conductor gel.

3. Connect the **cables** to their respective outlets (9). Prepare the client by applying **conductor gel** on the plates and placing them on the motor points corresponding to the muscles to be treated using elastic bands. It is

advisable to place the elastic bands on the body first and then slide the plates onto the motor points. Last, connect the **cable** to the **plate**.

4. Check that the **pressure** and **adaptation** of the bands is correct.

5. Turn on the switch (1). Check that the green light (13) flashes.

6. Select the **NORMAL** or **SEQUENTIAL** program.

7. Select the **MILD** or **INTENSIVE** position.

8. Turn on and set the buttons of **FREQUENCY** (5), **CONTRACTION** (6) and **RELAXATION** (7).

9. Turn on the power controls of the movement outlets (8).

- Start with a low level to observe the client's reaction to the passing of the electrical movement. After a few minutes, turn the intensity up progressively so that the muscle does not get used to the same type of contraction, and repeat the operation throughout the session. The muscular contractions must be intense but not painful. The indicator (10) will show the rhythm of transmission of the movement current.

- If the client feels a slight tickling, gently move the plate until the sensation disappears, since we are working on two or more motor points at the same time.

10. The intensity of the electrical movement can be modified or personalised using the **MILD** or **INTENSIVE** switch (2), following professional criterion. It is recommended to begin with MILD and observe the person's tolerance threshold:

a. ***Mild*** **option:** the electric signal stimulates preferably superficial muscles.

b. ***Intensive*** **option:** the electric signal stimulates preferably in depth muscles. The *intensive* option is also advised in people with abundant adipose tissue in the area to be treated.

- If the motor point of the muscle is located in depth as a result of the presence of adipose tissue, select the **INTENSIVE** position using the button (2). The square modulation of the current triggered by this converter has a greater penetration power than the exponential modulation activated on MILD. Before choosing the INTENSIVE position, put all power controls (8) to zero and, once the square

modulation is activated, increase slowly and progressively the power of each outlet.

11. Once the client's muscles are used to the programmed contraction, gradually **increase** the power of each outlet so that the intensity of the contraction will be higher but painless for the client. At the same time, adapt the parameters of FREQUENCY (5), CONTRACTION (6) and RELAXATION (7). People used to doing sport will adapt to the electrical movement more easily than those who do not do sport regularly. Setting the **intensity** can be done every 10 minutes on average. The pilot lamp will light up when current passes, visually indicating the rhythm and frequency of the movement received by the client.

    - The **combination** between **contraction** and **relaxation** gives us variants of treatment. A slow rhythm is obtained by creating more relaxation than contraction. A fast rhythm is obtained by doing the opposite. The **rhythm** must be slow at the beginning and become more intense as the session goes, always remaining comfortable for the client. The progressive variation of the rhythm will avoid the habituation of the client to the train of movements that tend to *expect* the contraction, and will improve the effects of the current on the muscular tone. Adapting these parameters allows to control the energy consumption level of the client.

    - To stimulate **volume reduction** in a defined area of the client's body, induce a degree of caloric combustion similar to that which would be produced if the client was doing aerobics (**jogging** for example). Choose a rapid rhythm with little muscle contraction in tetany. Using this option, the muscle is induced to create an activity rhythm maintained around 120 pulsations per minute, lasting a minimum of 30 minutes approximately and stimulating the combustion of the fatty tissues of the treated area.

    - If the aim of the client is muscle **firming** and **toning**, the rhythm must be slow with a long phase of contraction in tetany. This way, muscle fibres are stimulated to increase their resistance and become stronger and more intense. A good comparison for this type of beauty treatment is muscular training with **weights**. This type of exercise works more intensely on specific groups of muscles with powers higher than any aerobic exercise. The time of treatment can be less than during aerobics since the muscular surcharge is greater. The recommended time is 20-30 minutes.

It is important for the beauty professional to define his **objective** and **personalise** as much as possible the performance of the IMPSEC 5000 to the concrete objective of the client.

- **FREQUENCY:** frequency is a parameter of **comfort** for the client. It enables to adjust the electric sensation to the tolerance and sensitivity threshold of the person receiving the beauty treatment. It is also interesting since it enables to **deepen** the muscle treatment without altering or modifying the location of the passive exercise plates. Increasing the frequency of the electrical movement can induce the activation of myofibril from lower groups of muscles that lower frequencies do not activate. When choosing the frequency, it is interesting to ask the client what sensation is produced in the various planes when modifying the frequency. This subjective information helps the professional assess which muscles are most interesting to work on as target in the treatment. To this end, it is convenient to keep the **frequency** control on 5 and turn it on following the client's indications.

The **dialogue** with the client is very important in order to obtain the best results possible during the treatment. Everyone has specific individual parameters (hydric composition, percentage of fat, localisation of motor points, etc.) which can lead to a mediocre, acceptable or spectacular result. The professional must **find out** these parameters and use them correctly to personnalise the use of the equipment.

12. When the time of the session is over, reduce **slowly** and **progressively** the power of each independent output until hearing a "click". The treatment is then considered as completed.

13. When doing a combined treatment of normal and sequential movement, put all controls (8) to zero before removing the plates and disconnecting the equipment (1).

14. Put the plates as indicated for the SEQUENTIAL movement program.

15. Activate the SEQUENTIAL program.

16. Modify the parameters of FREQUENCY (5), CONTRACTION (6) and RELAXATION (7) for the toxin elimination program.

17. Slowly increase the power for each outlet (8).

18. When the time indicated has passed, reduce slowly and progressively the power to the minimum until hearing a "click". The session is thus considered as completed.

19. Afterwards, remove and clean the plates.

N.B. WARNING: **THE HEART OR METALLIC ELEMENTS** must not be found on the way from one plate to its pair.

IMPORTANT

All plates used in every treatment must be **carefully washed** with soap and water at the end of each session.

The client can feel a sensation of **heat** and **tickling** in the treated area (thermal rise and activation of the bloodflow) during the session. This is completely normal and shows that passive gymnastics has mobilised and activated blood circulation.

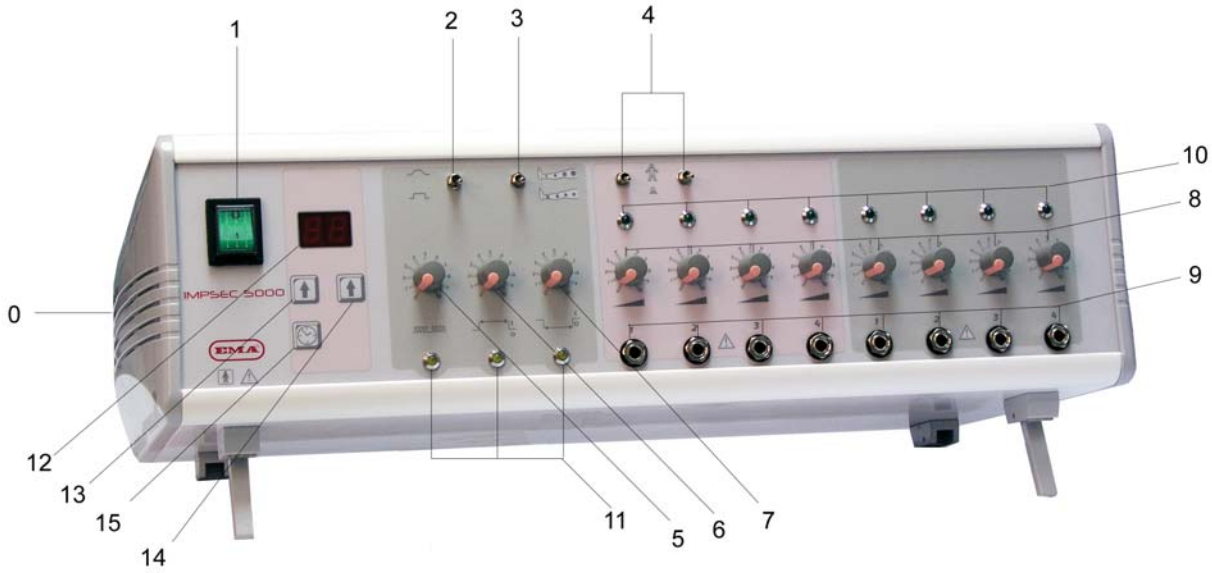
There must be total contact between the plates and the skin. Hence the importance of a proper adaptation of the plates by means of the bands, so that the **pressure** exerted by the bands is **homogenous** in the whole surface of the plates.

The skin is the most resisting organ of our organism. In order for the current to go inside, a **contact gel** has to be applied between the passive exercise plates and the skin. This contact gel can be **neutral** and without specific properties. A geloide product with firming or reducing properties can also be applied without altering the treatment.

OPTIONS OF TREATMENT:

1. **Corporal passive gymnastics**
2. **Corporal toxin elimination**
3. **Facial passive gymnastics and toxin elimination**

1. Corporal passive gymnastics



1. Before starting any treatment, make sure that the appliance is off, with all controls **on zero** (8).

2. Connect the plates to the client depending on the treatment to apply (the localisation maps of the plates are clearly indicated at the end of this manual).

3. Turn the meter gently (8) until reaching the appropriate power. The green lights (10) flash.

4. Choose the **CORPORAL** option (for outlet 1 and 2 only).

5. Choose the **NORMAL** program.

6. Choose the position **MILD** or **INTENSIVE**.

- Examine the client before selecting any option. If there is abundant adipose tissue, choose the **INTENSIVE** option. The same option must be chosen when the objective is to tone up the muscle in **depth**.

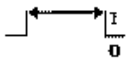
- On the other hand, choose the **MILD** option when the client has little adipose tissue. The same option must be chosen when the objective is to tone up the muscle at the **surface** and when the circulatory effect has the priority over the firming effect.

7. Activate and adapt the setting buttons of **FREQUENCY**, **CONTRACTION** and **RELAXATION**.

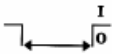
RECOMMENDATION:

FREQUENCY:

- Ask the client what sensation is created on its muscle and choose the frequency accordingly (from 0 to 10). Also used to deepen progressively the signal of the electrical movement and to gradually (from 5 to 10) tone up the muscle in depth.

 **CONTRACTION:**

- For a volume reduction (caloric consumption) the contraction must be short (from 0 to 5).
- For toning up, firming or muscle building, the contraction must be long (from 5 to 10).

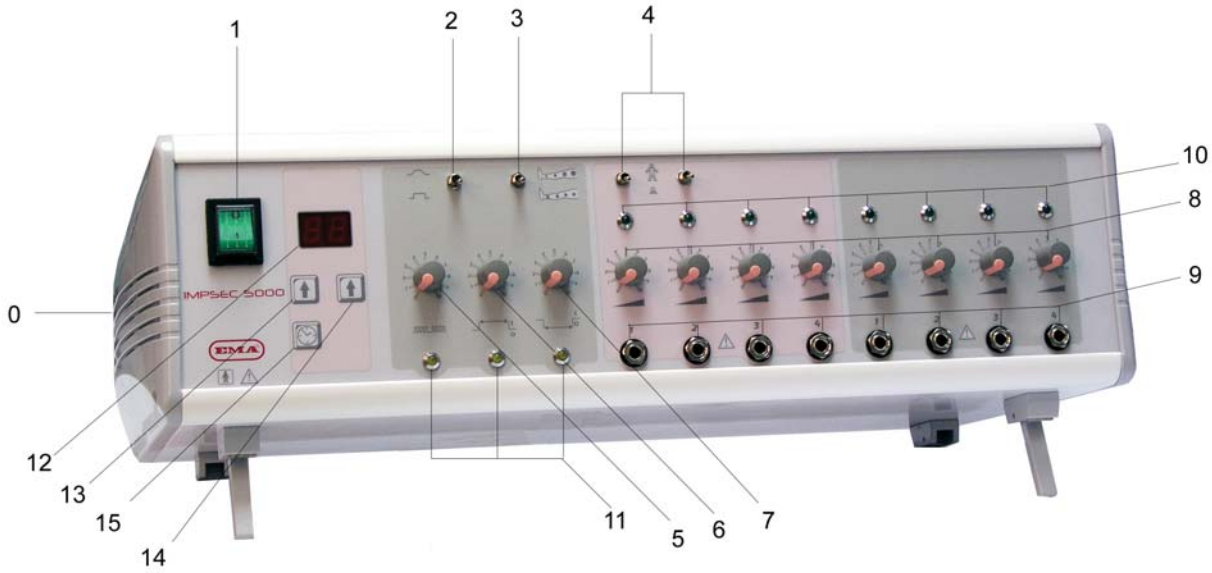
 **RELAXATION:**

- In passive gymnastics, the relaxation must be the mildest possible (from 0 to 3) for a longer time of aerobics.

8. Turn up the power of each outlet **slowly and progressively** until getting intense muscle contractions but not painful.

9. At the end of the treatment, turn the power of each outlet slowly and to zero until hearing a "click". The treatment is then considered as completed.

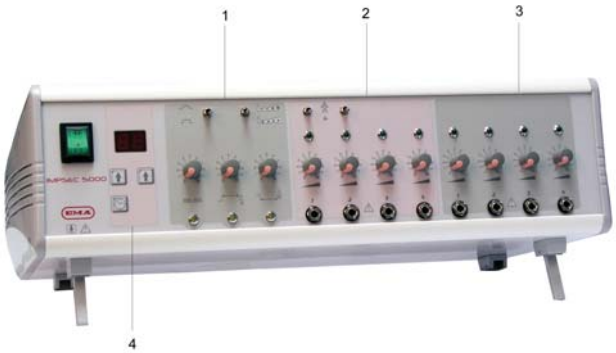
2. Corporal toxin elimination



1. Before starting any treatment, make sure that the appliance is off, with all controls **on zero** (8).

2. Connect the plates to the client depending on the treatment to apply (the localisation maps of the plates are clearly indicated at the end of this manual).

   Distribute the group of outlets 1, 2, 3 and 4 for the left leg and 5, 6, 7 and 8 for the right leg.



Window 2 corresponds to the right leg and window 3 to the left leg.
The four outlets on each window are numbered 1, 2, 3 and 4 from left to right.

We will only describe the first group since the operation of the second one is the same:

- Plug outlets 1, 2, 3, 4 along the leg, starting with number 1 closer to the foot.
- The order of the outlets (1, 2, 3, 4) must preferably follow the direction of the return bloodflow.

3. Turn the meter gently (8) until reaching the appropriate power. The green lights (10) flash.
4. Choose the **CORPORAL** option (only applicable to the first two outlets, since the remaining ones by defect are exclusively corporal).
5. Select the **SEQUENTIAL** program.
6. Select the position **MILD** or **INTENSIVE**.

- Examine the client before selecting any option. If there is abundant adipose tissue, choose the **INTENSIVE** option. The same option must be chosen when the objective is to tone up the muscle in **depth**.

- On the other hand, choose the **MILD** option when the client has little adipose tissue. The same option must be chosen when the objective is to tone up the muscle at the **surface** and when the circulatory effect has the priority over the firming effect.

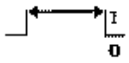
7. Activate and adapt the setting buttons of **FREQUENCY**, **CONTRACTION** and **RELAXATION**.

RECOMMENDATION:

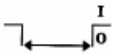
FREQUENCY:

- Ask the client what sensation is created on its muscle and choose the frequency accordingly (from 0 to 10).
- Also used to deepen progressively the signal of the electrical movement and to gradually (from 5 to 10) tone up the muscle in depth.

- For toxin elimination, the professional must decide if the client requires a beauty treatment of deep or superficial veins and set the button accordingly (0: superficial veins; 10: deep veins).

 **CONTRACTION:**

- The contraction must be extended to ensure a pump effect from the furthest to the nearest position (from 8 to 10).

 **RELAXATION:**

- In the toxin elimination program, the relaxation must be the littlest possible (from 7 to 10) in order for the toxins to be dragged towards the lymph glands.

8. Turn up the power of each outlet **slowly and progressively** until getting intense muscle contractions but not painful.

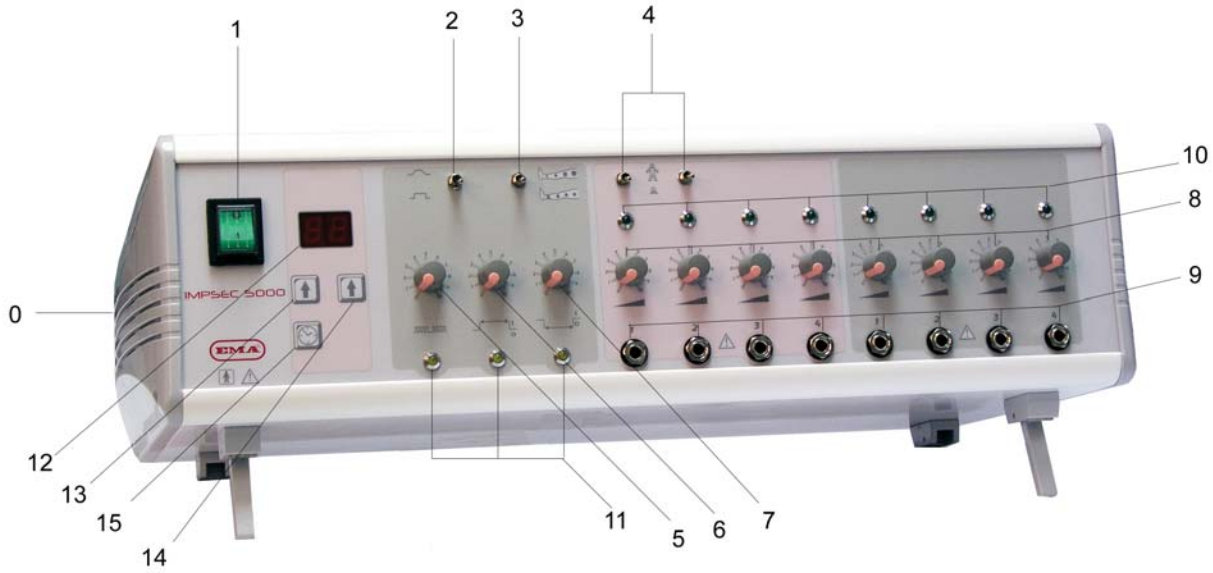
   - We can observe that, as shown on the light indicators, the CONTRACTION of the lowest part of the leg takes place first.

   - The contraction follows with outlet 2, 3 and finally 4 (higher leg). That is to say, the contraction is transmitted upwards, straining the muscle and favouring return circulation. When the contraction cycle is over, the RELAXATION cycle starts, relaxing first outlet 4ª and then being transmitted downward.

9. At the end of the treatment, turn the power of each outlet slowly and to zero until hearing a "click". The treatment is then considered as completed.

IMPSEC 5000 COMBINES PROGRAMS No **1** AND **2** IN SESSIONS OF ABOUT **50 MINUTES**.

3. Facial passive gymnastics and toxin elimination



The facial option additionally included in **IMPSEC 5000** makes this equipment a valuable complement to facial treatments, using only the **first two outlets**. These outlets are located immediately below the switches for the face, number 4 in the above photo.

For a facial, add the optional plates to the equipment; those plates adapt to the surface of the face. They are not included in the equipment - consult your nearest distributor.

Facial passive gymnastics can be done manually (using specific handles) or with small fixed plates. However the option of toxin elimination is more limited and can be done using the fixed plates.

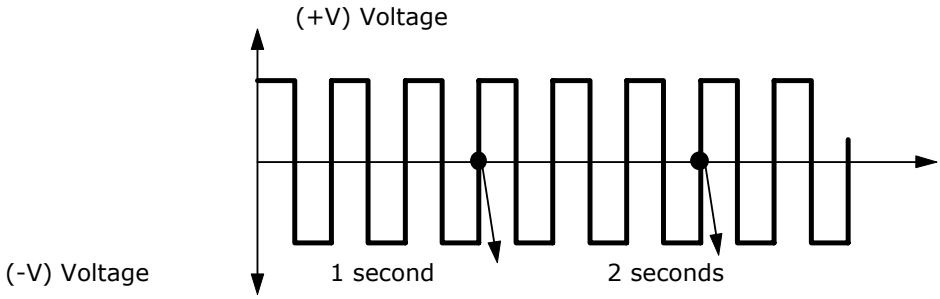
The procedure is the same as for the body, except that switch number 4 must be set on **FACIAL** and that the treatment is limited to 4 plates only (two plates on each outlet).

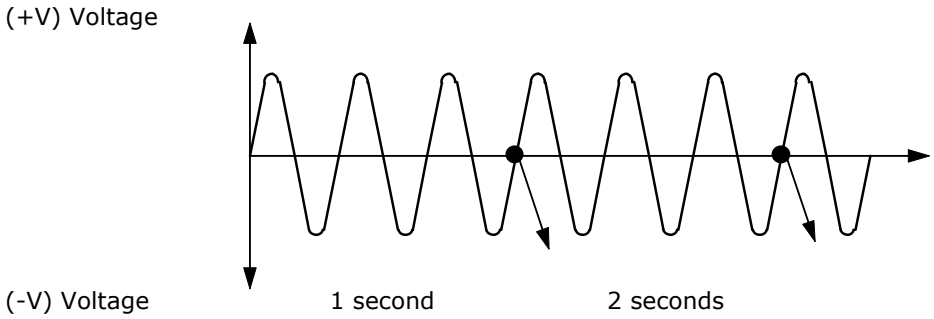
The professional, with his knowledge of the anatomy, must know where the passive gymnastics and evacuation points are on the face and adapt the treatment electrodes. This manual however includes an anatomic map to serve as a guide during the treatment. The duration of the sessions is shorter than

for the body (10 minutes at most) and the intensity of the movement is more moderated (MILD option) due to the absence of fat in the facial tissues.

PASSIVE EXERCISE CURRENTS

Passive exercise currents are alternating currents of different forms, presenting a variation of intensity in relation to time.

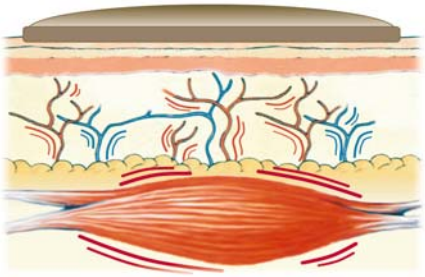




The characteristics of this machine allow to use muscular excitation in order to achieve the maintenance of muscle **tone** and muscular resistance with **aesthetic** ends.

This technique is known as ***passive gymnastics***, and its base is the production of muscle contractions similar to those of active exercise for body maintenance, as much of the muscle system as of health in general for the cardiorespiratory stimulus that they provide.

Exercise has a very definite action on **reduction** by three different forms of application:



- it increases energetic **expenditure**;
- it increases basal biological reactions;
- and it reduces **appetite**.

The aim of passive gymnastics currents is to act on the muscle fibres and cause their contraction.

First, we see an intuitive image of natural muscle contraction. We are going to limit ourselves to the **voluntary muscular** contraction, since there are also muscles that contract independently from the subject's will (as for example the heart).

The motor muscles are made of groups of cells called **muscle fibres** that have the possibility to contract. The contraction of these clusters of cells is produced when it is *ordered* by the nerve in contact with each muscle fibre, in a message sent by the brain. This order is translated into an electrical tension generated by the body in a natural way. Nevertheless, can this nervous pulse be reproduced artificially? The answer is yes.

The technique gives us the possibility to induce the contraction of a muscle through the application of a current produced by a machine. If the machine produces the adequate electrical signal, this will be dealt with by the muscle in a similar way to the *order* of contraction that the nerve conveys in a natural movement.

The muscular mobilisation produced by this appliance, nevertheless, has differences with the natural functioning of the muscle. These differences are the following:

Firstly, the appliance is far less precise than the natural functioning. Instead of having thousands of minute electrodes over each muscle fibre as nerve endings do, we only have several pairs of plates acting as larger electrodes and connected externally to the skin.

From these differences between the natural functioning and the movement of the appliance, we can deduce that the **client's characteristics** are essential to the approach of the treatment, since the passive gymnastics current produced by the machine does not act directly on the muscle. The nervous pulse crosses the layer of subcutaneous adipose tissue, which is an insulant, and therefore more or less power is needed to really reach the muscle's motor points. Besides the fat, there are **other factors** to consider such as the type of epidermis, bone structure...

Another important factor to consider in order to obtain good results in passive exercise is the **position** of the **plates**. These electrodes must be placed over

the desired motor point(s) with precision so as to excite only those fibres of the motor branch that we are interested in. In general, **only one muscle** is excited if the plates are placed on the muscle's **extreme** motor points. **The entire muscle mass** is excited if the plates are placed **transversally** to the cluster of muscles.

In order to locate the motor points, consult the corresponding graphs, since these points vary from one subject to the other. For this reason it is best to locate them in an individualised way for each client using the diagrams.

The **pressure** exerted by the plates on the skin's surface during the treatment is vital for results. If they are too loose, the resistance that the contact surface presents increases and efficiency is reduced. However, as the objective of the application of the trains of movement is to improve blood flow, if too much pressure is exerted the circulation is obstructed. The plates acting as electrodes must meet certain conditions in order to exert good electrical contact, adapt themselves well to the body, be hygienic, etc.

There are many types, each with its advantages and drawbacks. Rubber plates have a resistance of several ohms, which means that the power supplied on each point of contact with the treated surface reduces as the distance between the plate's point of contact and the treated surface increases. This factor shows how important it is to place the plates correctly and makes them suitable for use in *passive gymnastics* treatments. They cannot, however, be used for an unlimited length of time because the inside of the rubber contains carbon particles which gradually disappear. For this reason the rubber gradually becomes insulating and the worn out plates must be replaced with new ones.

Finally, another factor undoubtedly effecting the results in passive gymnastics is the type of **electrical signal** produced by the machine. In this sense, IMPSEC 5000 widely complies with the safety standards regarding insulation and the range of rectangular movements for which each train of movement produces a contraction. The modulation of trains of movement allows to carry out an "intensive" or "mild" treatment. The user can choose the rhythm of contraction as well as the frequency of the pulses contained in each train of movement to the value resulting the most comfortable.

EFFECTS OF VARIABLE CURRENTS

The main **action** of these currents is represented in its **effect** on **muscle mobilisation** although, logically, they have other application effects that can broaden their operative range. What we are mostly interested in is the mobilisation effect.

Effect of movement

All living tissues are capable of reacting both to external actions and to modifications of the internal environment. Irritability is a general characteristic of living matter. Among all the tissues, the nerve and muscle tissues are the most suitable to receive excitations and react, this reaction being the **contraction**.

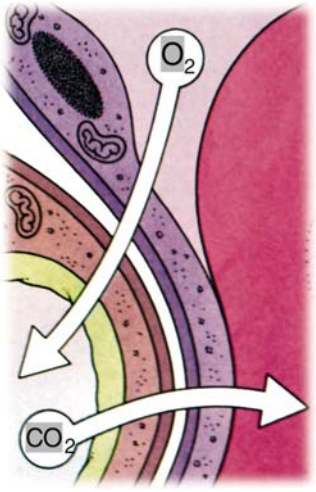
They are called excitable, which means that they have excitability or are capable of responding to an energetic variation of the environment by an inner change; this variation is called **stimulus**. The relationship between the action of peripheral factors and the reaction of tissue is called *state of excitability* or *state of excitation*.

Normally the nerve cell is put into action by **a single excitant**. There are several excitants capable of stimulation: **mechanical**, **thermal**, **chemical** and **electrical**.

Electrical current is the best of these excitants. Electrical excitation, indeed, presents many **similarities** with the majority of **excitants**: it is easy to measure, does not cause permanent changes in the elements that it crosses and, above all, puts into action minimal amounts of energy.

Other important effects of the variable currents, apart from muscular excitability, are:

- **Improvement** of the peripheral **return circulation**, which helps to eliminate waste products.



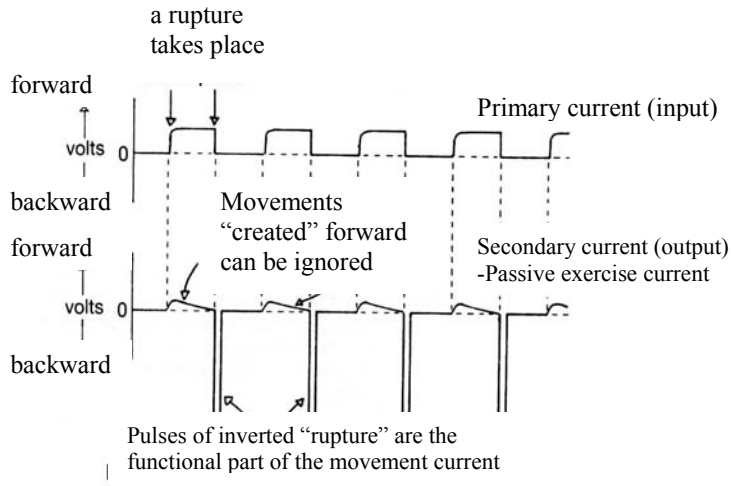
- Stimulation of the **local biological reactions**, where the muscular excitation takes place, with which overweight, cellulites, flabbiness, etc. can be treated.

Passive gymnastics through electrical currents

When an intense and sharp electrical movement passes through the body, the muscles in its way contract in response. An electrical current flowing as a not too fast *series of pulses* will make the muscles *contract and remain contracted* during the time that the current flows.

1. A direct interrupted current in the form of a series of small, sharp pulses through the body is called ***movement current***.

Sinusoidal beauty treatment



Current as shown on an oscilloscope

How the sinusoidal current contracts the muscle

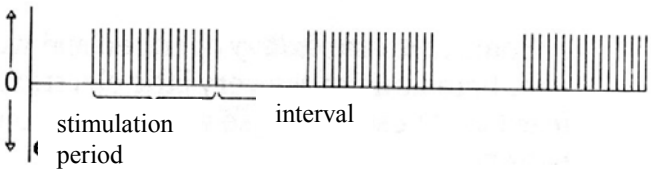
When we consciously decide to move, the brain sends electrical messages through ***motor nerves*** to those muscles that will be contracted to create movement. The electrical messages from the brain consist of a series of ***electrical pulses***.

As soon as *external* electrical pulses of the same type of frequency (up to 100 pulses per second) are introduced in the organism, they must also be captured by the *motor nerves* and generate a muscular contraction.

Nevertheless, *nature* conscientiously tries to prevent this factor. The high resistance of the skin prevents our bodies controlling other people's bodies merely by touching. Also, each nerve is *isolated* by a fat *myelin sheath*.

This means that, first, **exterior pulses** must have a fairly high voltage in order to cross the skin and, secondly, they must be directed to the *motor points* of the muscle so that this detects them easily. The *motor point* is the point of the muscle where the motor nerve enters. The electrodes must be carefully placed so that the flow of current through the body is produced in this motor point.

While the current passes, the muscle contracts and remains contracted. The current decreases and the muscle relaxes. The muscle can be stimulated so that it contracts and relaxes alternately through the adjustment of the current.



Owing to the high resistance of the skin, applying a sufficient current to develop an effective treatment can generate a characteristic sensation in the client.

Electrodes

In order to complete the circuit through the client, the passive exercise current is applied through electrodes.

Plate electrodes

Electrodes need a conducting agent to transmit the current through the skin. Modern body electrodes are made of *plastic impregnated with carbon* that makes them electrically conductive, with no need to apply water or salt as it was done in the past. A thin layer of **conductor gel** must be applied between the plate and the skin in order for the current to overcome the electrical resistance of the skin and penetrate inside.

Locating the plates on the client

Most equipments using movement current are *multi-output* machines that can work with several pair of electrodes simultaneously. Electrodes must be used jointly with their **homologous pairs** to obtain complete circuits. Nevertheless, there are a number of methods of application of these pairs of plates:

In *duplicate motor* plate location, the pair of electrodes is placed in the motor points of **two adjacent muscles**. The current only has a short path through the body from one electrode to the other. Another pair of plates is normally applied in the corresponding muscles in a different part of the body.

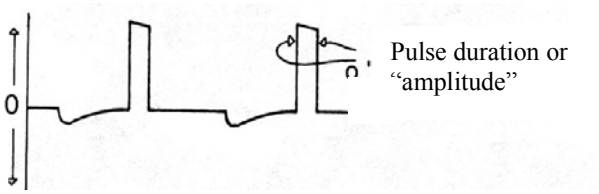
In *separated plate* location, one plate is put on the **motor point of a muscle** and its homologous pair is placed on the equivalent muscle on the **other part** of the body. This method is not recommended.

Longitudinal plate location is useful where the motor point of a muscle is not easy to locate. One plate is placed near its origin and the other near the insertion of the *same* muscle. The current *has* to pass the motor point.

On the face, where a number of motor-points are close together, conventional plate application is not possible, or at least, difficult.

Duration of the pulse

Normally, every brief and intense passive exercise pulse lasts 0,3 milliseconds (about 3/10.000 of a second). **IMPSEC 5000** has a control system for the duration or amplitude of the movement allowing maximum control of the electrical pulse.



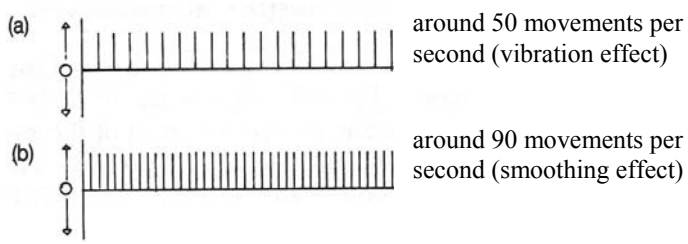
MOVEMENT DURATION OR AMPLITUDE IN MOVEMENT PULSES

Frequency of the pulses

IMPSEC 5000 includes a button allowing to control the *frequency* included between 40 and 120 approximately.

Alternatively, there is also a *mild/intensive* switch. Controlling this buttons and switches, different sensations can be produced in the client. The numbers correspond to the frequency of pulses per second.

A pulse frequency of 40-60 pulses per second produces a **vibratory contraction** of the muscle. This is known as ***incomplete tetany in the muscle*** or ***vibratory effect***. The muscle vibrates because it has time to *relax* a little before the next contraction.
Turning up the frequency to around 90 pulses per second produces a **steady contraction**, a ***complete tetany*** or a ***smooth effect***. The muscle does not have time to relax between one pulse and the next.



For some time, physiotherapists have considered movement currents not completely effective in muscle treatment. Recent investigation and research have shown the structure and the control of the motor nerve of a muscle to be much more complex than was thought. Within a muscle are ***three*** **types of fibres**.

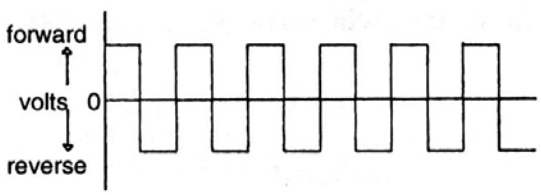
The motor nerve that controls each type of fibre **communicates** with **different frequencies** of pulses.

- **Slow oxidation:** non-fatigable *stamina* fibres - constitute up to 50% of a muscle and are stimulated by frequencies of 6 to 15 pulses per second.

- **Fast glycolytic oxidation:** the main *strength* fibres with a tendency to fatigue and tiredness. Constitute up to 50 per cent of a muscle and are stimulated by frequencies of 20 to 45 pulses per second.

- **Fast glycolytic:** fibres with *explosive power* fibres for sprinting, jumping and high intensity activities. Tire easily and are stimulated by frequencies of 50 to 70 pulses per second.

This obviously means that the machines providing a range of 40 to 120 pulses cannot fully stimulate all muscle fibres. Some of the appliances using new generation movement currents have widened the range of low frequencies u to one pulse per second, which means that they can create programs of various pulses and frequencies to work on *all* fibres of a muscle.

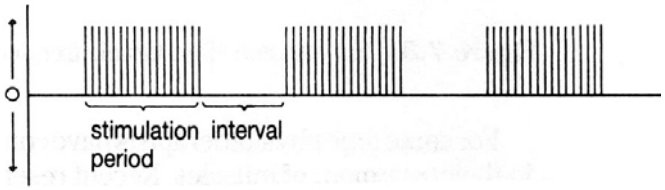


At a maximum of 120 pulses per second, muscle stimulation is far less effective. The motor nerves

cannot transmit pulses much faster than this. However, because higher frequencies pass through the skin more easily and with less discomfort, some machines are made using much higher frequencies of 400, 600 and even 800 pulses per second. With these frequencies, it has been shown that the passive exercise current has no effect. Instead they use an *alternating* ***square wave current*** that has been shown by experiment to be effective.

Timing the movements and intervals

IMPSEC 5000 controls the length of the *stimulation period* and *interval*. Analysing the signal of the current in an oscilloscope, we can observe which are the stimulation periods and the intervals, as the following image shows. These parameters can be personalised using **rhythm** and **frequency** controls (stimulation period and interval), and it is interesting to observe its effect.



In practice, the control of the periods of passive gymnastics is enough to give a good contraction and the control of the interval enough to fully relax the muscle. More time is really a waste of time in the treatment.

All muscles are programmed to contract and relax in synchronisation.

Program or control mode

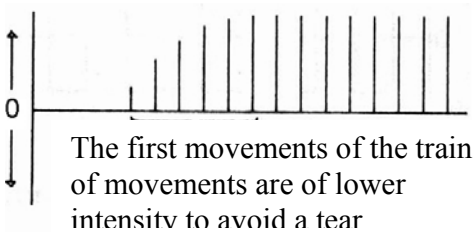
Some clients consciously or unconsciously dread the session and fight against the contraction, which affects its full effect. Program control or mode creates a differentiated and random transmission of current making it difficult for the client to anticipate the moment of the next contraction. It is convenient to **vary** and intensify the frequency and rhythm **parameters**.

Train of movements

The series of pulses producing movements or a stimulation period is known as **train of movement**. The nature of the contraction can vary according to the individual strength of the pulses creating the train of movements.

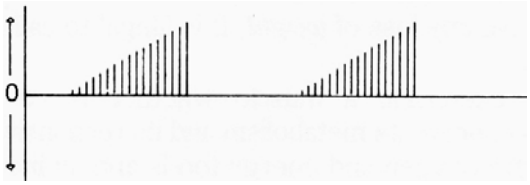
A train of movements too abrupt and aggressive with pulses of the same intensity tends to create an unpleasant feeling of heartrending contraction. This happens because the first few pulses of the same intensity move more freely through the skin, for its intensity gradually builds, and for this reason they are more effective at the time of contraction.

Therefore, the first pulses of each train of movements are of lower intensity and gradually increase. This effect can be observed by means of an oscilloscope.



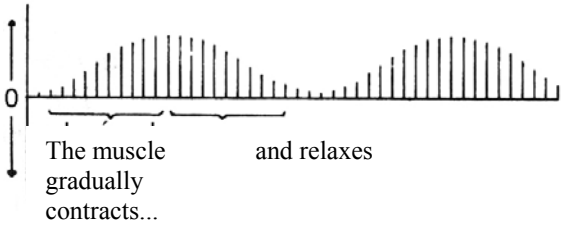
The first movements of the train of movements are of lower intensity to avoid a tear

Passive gymnastics equipments can produce an increasing train of movement to contract the muscle more and more along the train of movements - and suddenly relax when the train of movements stop.



Triangular train of movements as shown on an oscilloscope

Other machines produce a gradual train of movement based on the progressive intensification and a mild decrease, contracting and relaxing the muscle.



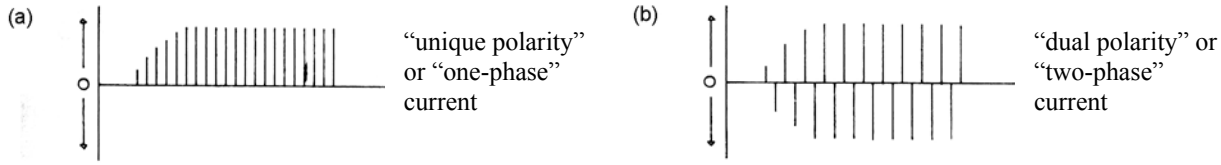
A movement current with a real train of movement

Polarity control

As mentioned before, the greatest obstacle to the passing of the current through the body is the *resistance* of the skin. This resistance produces a ***sensation*** in the skin when the currents go through it. For some customers this sensation is unpleasant, sometimes unbearable, when a sufficient amount of current passes to give satisfactory contractions.

Many units of movement current have a *polarity* control in *mono* or *duo* (*one-phase* or *two-phase*). In the position *one* or *two-phase*, a normal current of movement flows. If changed to *dual* o *two-phase*, each alternating pulse is inverted and the ions vibrate easily forward and backward. The resistance is less and therefore the **sensation is *reduced*.**

MOVEMENT CURRENTS WITH UNIQUE AND DUAL POLARITY



Normal movement pulses all follow the same direction. The movement of the ions - the current - only takes place in one direction. The first *pulse* of a *train of movements* moves the ions easily, it is a bit harder for the second one and so on as the resistance increases. In *dual* or *two-phase*, each alternating pulse is *inverted* and the ions vibrate easily forward and backward. The resistance is less and therefore the **sensation is *reduced*.**

Beauty treatment technique with *passive gymnastics*

Passive gymnastics treatments aim at contracting specific muscles through the application of two electrodes in the appropriate position. Each pair of electrodes stimulates determined muscles according to the person.

IMPSEC 5000 has **8 pairs** of **electrodes**. The type of current used is produced by *groups* of small movements. With voluminous muscles and/or muscles covered by fat layers, the power of those movements must be increased in order to produce a contraction. Although it highly depends on personal characteristics, facial muscles usually require a much lower power than body

muscles. For this reason, IMPSEC 5000 is provided with two outputs with a option especially conceived for the face and a facial-corporal power minimiser.

Physical effects of the treatment with movement currents

Simply, the purpose of beauty treatments using movement currents is to cause muscles to ***contract*** and ***relax*** alternatively, to exercise them with no physical effort on the part of the client. Hence the terms ***passive exercise*** or ***passive gymnastics***.

Since no movement of the joints or limbs occurs, it is an ***isometric*** exercise.

Its purpose is ***figure-control*** by improving muscle ***tonus***. Because of their lifestyle, most people make little use of their body muscles, particularly those of the upper arms and shoulders, the abdomen, buttocks and thighs. The **underused** muscles gradually stretch and when relaxed, hang slack, which results in a deterioration of the figure and adds extra centimetres to the measurements. This, together with a lack of response due to a reduced rate of the biological reactions within the muscles, causes a *lack of tonus*.

An exercised muscle will remain under a certain tension even when relaxed. That is when we can say that its tonus has **improved**.

By toning up flaccid muscles this way, it is possible to **reduce** the measurements of the waist, the hips, the thighs and the upper arms, and generally to firm and shape the figure.

Similarly, toning up the muscles of the **face** and **neck** improve the facial features. Many clients find it difficult to exercise their facial muscles themselves.

The effect of deliberately exercising a muscle whether by voluntary contraction or passive gymnastics is to improve its biological reactions and its responsiveness. This creates a **demand** for extra **oxygen** and energy foods and an increased output of cellular respiration waste, which causes the dilation of the muscle capillaries and increases the **blood** supply. The alternate contraction and relaxation of the muscle increases the movement of waste through the pumping action on the veins and lymphatic vessels.

Using modern machines such as IMPSEC 5000, peripheral venous circulation and toxin elimination of a leg can be stimulated by locating the plates specifically and by the ***sequential contraction*** of the muscles from foot to thigh.

Movement current in combination with other treatments

Usually, movement beauty treatment is used as **part** of a **programme** of treatments for the client. More than one type of equipment can be included in the programme. For instance, *galvanism through the body* might be used as a preparation to ***movement* beauty treatment**. By stimulating the biological reactions, galvanism improves the response to the current of **movement**. Machines are available which send both **galvanic** and **movement** currents (IMPGA 5000) in the same pair of plates or separated electrodes. After galvanism, the current of movement is connected and will go on after the galvanic current has ended. It is also interesting to combine Passive Gymnastics with the application of the **CEYA** technique.

Time of treatment

The duration of a beauty treatment using movement is not critical. For the method of plate location, the treatment can last **20 minutes** or so. The manual method using passive gymnastics handles should produce at least 12 contractions in every muscle treated to be of any real value.

Phases of reduction by exercise

Physical exercise is said to be a good means of reduction, but that it is not as fast as that obtained only by some diets. However, once attained, it is much more lasting than a diet. We are going to study the evolution of the reduction achieved through exercise. We will note to clear phases: what we call **aesthetic reduction** and **ponderal** reduction**.**

During the first week, maybe fortnight, the person doing passive or active gymnastics seems slimmer and slimmer, but however they do not lose weight. What happens in the organism? Muscle toning **forms muscles** while reducing energy supply (fat). It is said that for each kilo of fat lost, a kilo of muscle forms, which is why there is no ponderal reduction. But as fat weighs less than muscle, there is on the other hand a loss of volume. The person doing exercise loses weight progressively, which can be seen if we measure the round of the arms, waist, hips, thighs, which will experience a progressive reduction, even if a loss of weight has not been detected.

Furthermore, passive gymnastics tones up the muscles, which and gives a more aesthetic impression thanks to the back straightening, reduction of the

abdomen contour and elevation of the buttocks it provides. Therefore the name we gave to that first phase, ***aesthetic reduction***.
Once the muscle is toned up, the ponderal reduction really starts, with a discreet pattern of weight loss (from half a kilo a week), but with a maintained loss and progressive stabilisation of the figure. We must bear in mind that, compared to the reduction by diet, which only removes a few kilos, ***reduction by physical exercise*** has other important advantages for maintenance:

- It **tones up** the muscles (which, as we said, is important to adopt a correct position). It is also positive in cellulitis treatment, since subjacent muscles are usually hypotonic.

- It **stimulates** the peripheral bloodflow due to muscle contractions, which is useful in peripheral circulation troubles, swelling, heavy legs and cellulitis.

- It produces **relaxation** and a whole series of muscle contractions and physical exercises. In people with insomnia, passive gymnastics help to sleep better.

- Finally, it shares the general **advantages** of the **exercise** such as the feeling of well-being, euphoria, strengthening, general functional improvement of the organism.

Application time

As mentioned in the previous paragraph, passive gymnastics represents an alternative to traditional physical exercise, but with a local application. The application time of the **IMPSEC 5000** equipment is conditioned by the client's characteristics and particularly its physical situation.

For this reason, the professional must **assess** each case individually and control the client's evolution until possibly recovering muscle tonus. Since muscle fibre has memory, faster results will be obtained in people doing sport, toning or exercise. However, consistency and a good diet are the indispensable allies for better results.

Passive gymnastics sessions must last about **20-30 minutes** for the **body** and **10-15 minutes** for the **face**.

The intensity of the current used must **increase** progressively throughout the session to prevent the muscle from getting used to the electrical movement

and to act as a stimulus for a greater toning of the muscle, but without a painful perception of the current for the client.

The sessions must take place **two** or **three times** per **week** for a treatment of **15 to 20 sessions**, or can even be followed everyday.

The professional opinion at individual level is decisive to determine the duration of a treatment. Passive gymnastics can also be applied to retain good results once the treatment is over or for physical maintenance in general.

Locating the plates and the contact gel

Applying **IMPSEC 5000** is achieved locating plates on the areas of the body to tone up, depending on the problem to treat. Apply a thin layer of conductor gel on the plates on the plates for a better transmission of the current to the human body.

BEAUTY TREATMENT IMPSEC 5000

The effect of **IMPSEC 5000** on the tissues, muscular and others, can be observed from the first weeks of application. An example is the reduction of a few centimetres, and volume reduction, although it is not only accompanied by a weight loss. This volume reduction without weight loss is explained by the transformation of fat into muscle. With the **IMPSEC 5000** equipment, the muscle fibre is stimulated in such a way that it ends up replacing the spaces occupied by fat. However, this conversion has a paradoxical effect on the human body, since muscle is heavier than fat.

To control the results achieved, the clients must be measured previously to the session of treatment. Five outlines must be selected to this end: breast, waist, hips, thighs and upper knee.

Real loss of weight or volume in between sessions is a variable parameter that depends on the characteristics inherent to the client, his/her way of life and the food he/she eats. Therefore, the difference between one session and the next is considered as weight or volume loss, knowing however that there is always some recovery of the loss.

As a complement to the treatment, it is recommended to urge the client to follow a proper food style according to their daily activity. On the other hand, products with a collagen action can also been applied, capable of increasing the activity of the triglyceridolipase of the adipose cells, whether through meso-treatment, penetration of cosmetics, CEYA or other known techniques.

The sequential machine **IMPSEC 5000** is an equipment of bioelectrical stimulation based on a low frequency alternating current with specific characteristics concerning the train of movement, modulation… Those characteristics make IMPSEC 5000 an indispensable ally in **REDUCTION**, **TOXIN ELIMINATION** and **CELLULITE** treatments.

This appliance combines distinct work systems in a single module, each one with defined effects. The efficiency of the results obtained depends on the isolated or joint use of the type of currents generated by IMPSEC 5000: **normal** (isotonic) or **sequential** (isometric) movements.

The **normal** movement produces a **maintained** and simultaneous muscular contraction with all the plates. On the contraction, this type of stimulus has a FIRMING and toning effect on the muscle fibre. Furthermore, for the characteristics of the type of contraction created, it has a **reducing** effect since it produces the important increase of the activity of the muscle fibre, which accelerates the activity of the lipids and help mobilising the fat deposits of the organism.

STEP 1 of the treatment

STEP 2 of the treatment

INDICATIONS

- Overweight.
- Localised and diffused cellulite.
- Circulatory problems: swelling, heaviness...
- Flabbiness.
- Physical keep-fit.

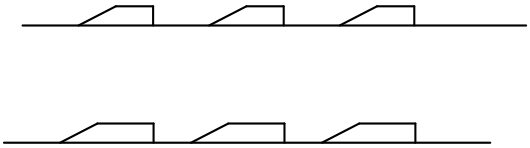
SYSTEMS

There are two different systems of treatment:

- **System 1**
- **System 2**

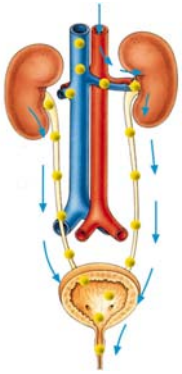
SYSTEM 1

MINIMUM RHYTHM: **SHORT** CONTRACTION



SYSTEM 2

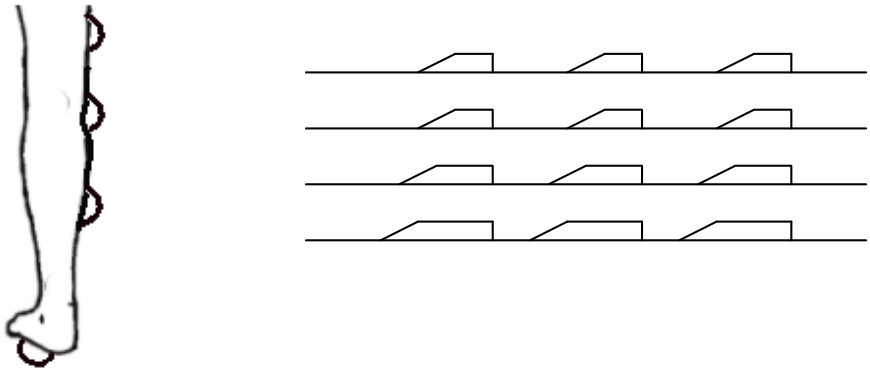
MINIMUM RHYTHM: **LONG** CONTRACTION



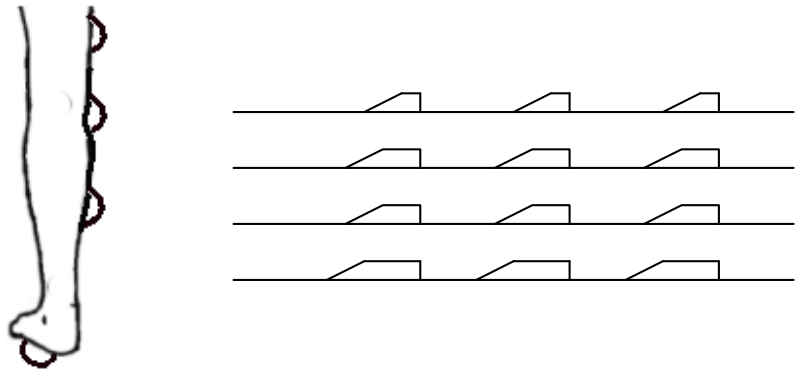
The sequential movement produces a sequential contraction in a centripetal direction that favours interstitial **liquid** resorption and efficiently activates lymphatic and venous **circulation**. This produces the systematic ELIMINATION with liquid surcharge towards the organic filters. Hence the subsequent **diuretic** effect.

IMPSEC 5000 has an important diuretic effect.

MINIMUM RHYTHM: **LONG** SEQUENCE. **LONG** RELAXATION.



MAXIMUM RHYTHM: **SHORT** SEQUENCE. **SHORT** RELAJACIÓN RELAXATION.



The **combined** use of these types of movements produced by the machine are recommended in **cellulites** treatments. Scientifically known as sclerotic degenerative oedematous panniculitis, cellulitis is a unclearly defined modification of the connective tissue. Whereas overweight is the simple accumulation of adipose tissue that does not usually provoke transformations in other tissues of the organism, cellulites directly **affects** the cell membrane and becomes visible outside due to its anti-aesthetic aspect.

Cellulite formation stages

The **first step** in cellulitis is the slowing down in lymph elimination, the connective tissue being flooded by this liquid (**simple congestive phase**).

In the **second phase** of cellulitis, the loose and flexible tissue thickens and acquires a more gelatinous consistency until falling into flakes. This state provokes the irritation of tissue fibres, which separate into fibrils, producing a compact fibrous tissue oppressing the vessels and nerves and forming a barrier for vital exchanges. This fibrous organisation is the direct cause of cellulitis, which is localised in specific areas although there is a general dysfunction of the organism.

IMPSEC 5000 is efficient because it effects the **subcutaneous cellular tissue**, the **muscular tissue** and the **circulatory** system.

- On the **muscle**, this current provokes a specific contraction of isothermal type, accompanied by a slight effect of twist and turn of the muscular fibre.

- On the **subcutaneous cellular tissue**, it contributes to the mobilisation and resorption of interstitial liquids and tissues retained inside. In addition, stimulating the whole of the biological reactions favours the mobilisation of fat deposits.

- On the **circulatory system**, it favours return venous circulation and the reabsorption of the swelling.

Improves lymph circulation.

These are the effects of **IMPSEC 5000** on the human body. The characteristics of this equipment allow to choose the most personalised choice of movement for the clients and their problems in each treatment.

The **normal** and the **sequential** movement **normal** can be used apart or combined in the same session, depending on the effect desired in each treatment.

SUGGESTIONS OF TREATMENT

1. **NORMAL PROGRAM**: The application time is **30 minutes** at the maximum intensity tolerated by the client. During the session and throughout the treatment, increase this intensity progressively to prevent the muscle fibres from getting used to the same electrical stimulus. The plates must be placed on the body following the requirement of loss of adipose tissue and volume in another area. However, it is advised to vary their location on the client's body from one session to the next to tone up the whole muscle.

NORMAL PROGRAM: **REDUCTIVE** AND **FIRMING**
- Normal movement (passive gymnastics)
  -Duration of each session: **20 minutes**.
  -Duration of the treatment: **15-20 sessions**.
  -Pattern: **2-3 sessions** per week.

2. **SEQUENTIAL PROGRAM**: The application time is **minutes** at the maximum intensity tolerated by the client. However, **when the day of the treatment corresponds with the menstrual cycle, do not apply the sequential movement on the abdominal region.** Hypersensitizing produced by menstrual troubles could induce pains in the ovarian area due to the passing of the current. It is not recommended, therefore, to place the plates onto this area during the period. Nevertheless, the plates can still be applied onto the lower extremities for toxin elimination.

SEQUENTIAL PROGRAM: **CIRCULATORY PROBLEMS**
- Sequential movement (toxin elimination)
  -Duration of each session: **15 minutes**.
  -Duration of the treatment: **10-15 sessions**.
  -Pattern: **1-2 sessions** per week.

3. **COMBINED PROGRAM: 1 + 2**

COMBINED NORMAL AND SEQUENTIAL PROGRAM: **CELULITIS**
- Normal movement + sequential movement
  -Duration of each session: **50 minutes.**
    -NORMAL MOVEMENT: **30 minutes.**

-SEQUENTIAL MOVEMENT: **20 minutes**
-Duration of the treatment: **10-15 sessions.**
-Pattern: **1-2 sessions** per week.

Summary

NORMAL PROGRAM: **REDUCTIVE** AND **FIRMING**
- Normal movement (passive gymnastics)
  -Duration of each session: **20 minutes**.
  -Duration of the treatment: **15-20 sessions**.
  -Pattern: **2-3 sessions** per week.

SEQUENTIAL PROGRAM: **CIRCULATORY PROBLEMS**
- Sequential movement (toxin elimination)
  -Duration of each session: **15 minutes**.
  -Duration of the treatment: **10-15 sessions**.
  -Pattern: **1-2 sessions** per week.

NORMAL PROGRAM Y SECUENCIAL COMBINADO: **CELULITIS**
- Movimiento normal + Movimiento secuencial
  -Duration of each session: **50 minutes.**
    -MOVIMIENTO NORMAL: **30 minutes.**
    -MOVIMIENTO SECUENCIAL: **20 minutes**
  -Duration of the treatment: **10-15 sessions.**
  -Pattern: **1-2 sessions** per week.

The application of the sequential equipment **IMPSEC 5000** is done locating the plates in specific areas as shown in the following graphs. Apply the neutral conductor gel on the plates to favour the transmission of the current to the human body. The application of the plates must vary according to the requirements of each moment, following a criterion of location per area. This way the most appropriate location for each phase of the treatment is chosen during each session. See the graphs at the end of this manual to identify the different locations of the plates.

Contraindications and precautions

The contraindications of the beauty treatment with IMPSEC 5000 are the same as for a general treatment. An additional precaution is that you should avoid applying the treatment in an area close to the heart. The current could act as a **pacemaker** and effect the cardiac contraction.

Also be careful when you put the plates on the client and begin the treatment. Always make sure that all the intensity controls are on **zero** before switching on the machine.

Afterwards, gradually increase each control until the client feels a slight tingling sensation under each pair of plates. **IMPSEC 5000** is provided with a safety device not allowing its operation until all the intensity buttons are on zero (safety electric circuit).

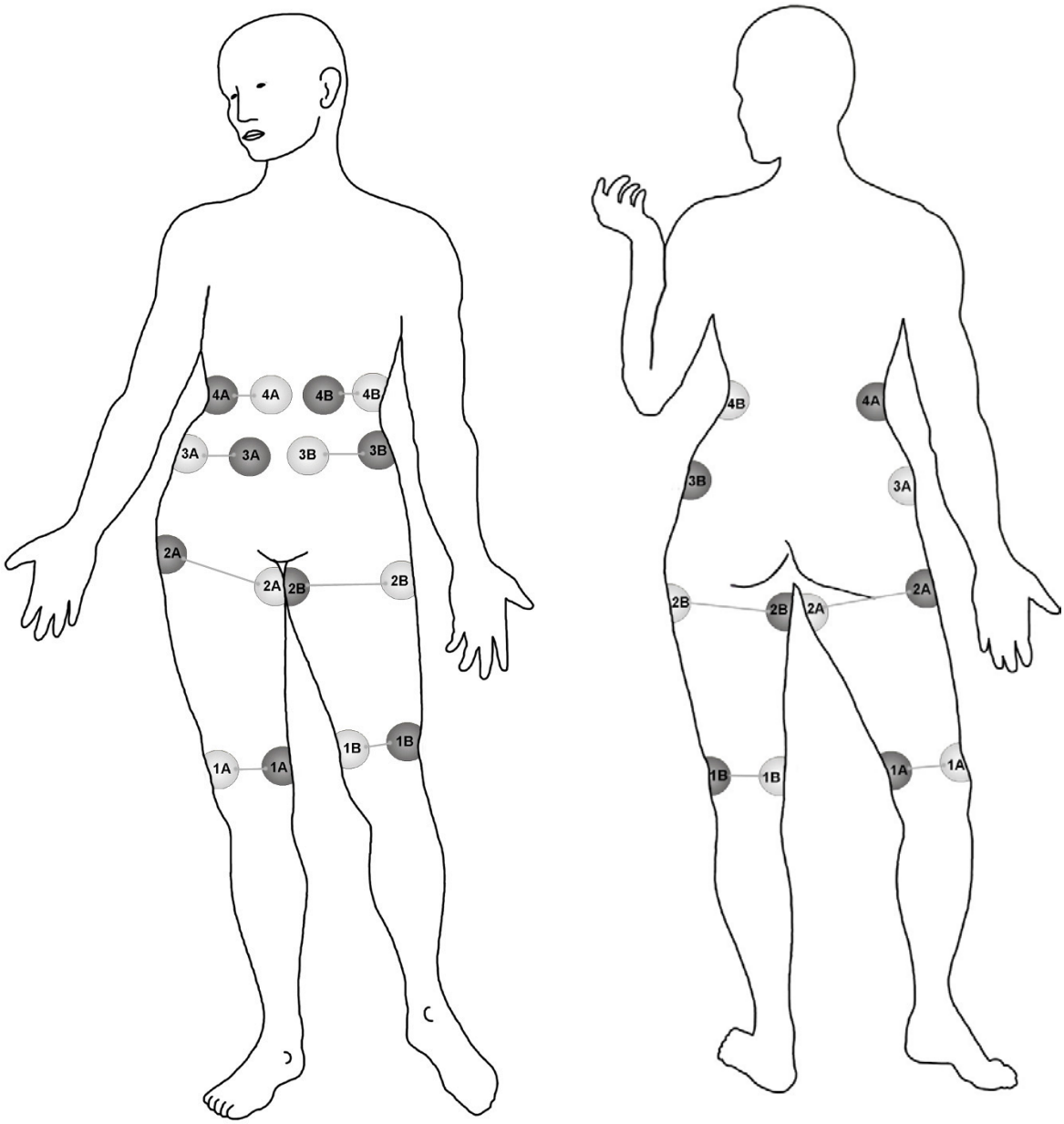
CONTRA-INDICATIONS

- People with a **pacemaker**.
- Any type of muscle **injury**.
- Do not apply on the abdominal region of **pregnant** women.
- Do not apply on the **hepatic** zone of people with hepatic dysfunctions or lithiasis problems.
- **Serious** or non-compensated circulatory troubles: phlebitis, thrombophlebitis, important varices...
- The **intensity** of the contraction must never be painful. Contractions being too intense may produce tears and muscle injuries.

TREATMENT GUIDE

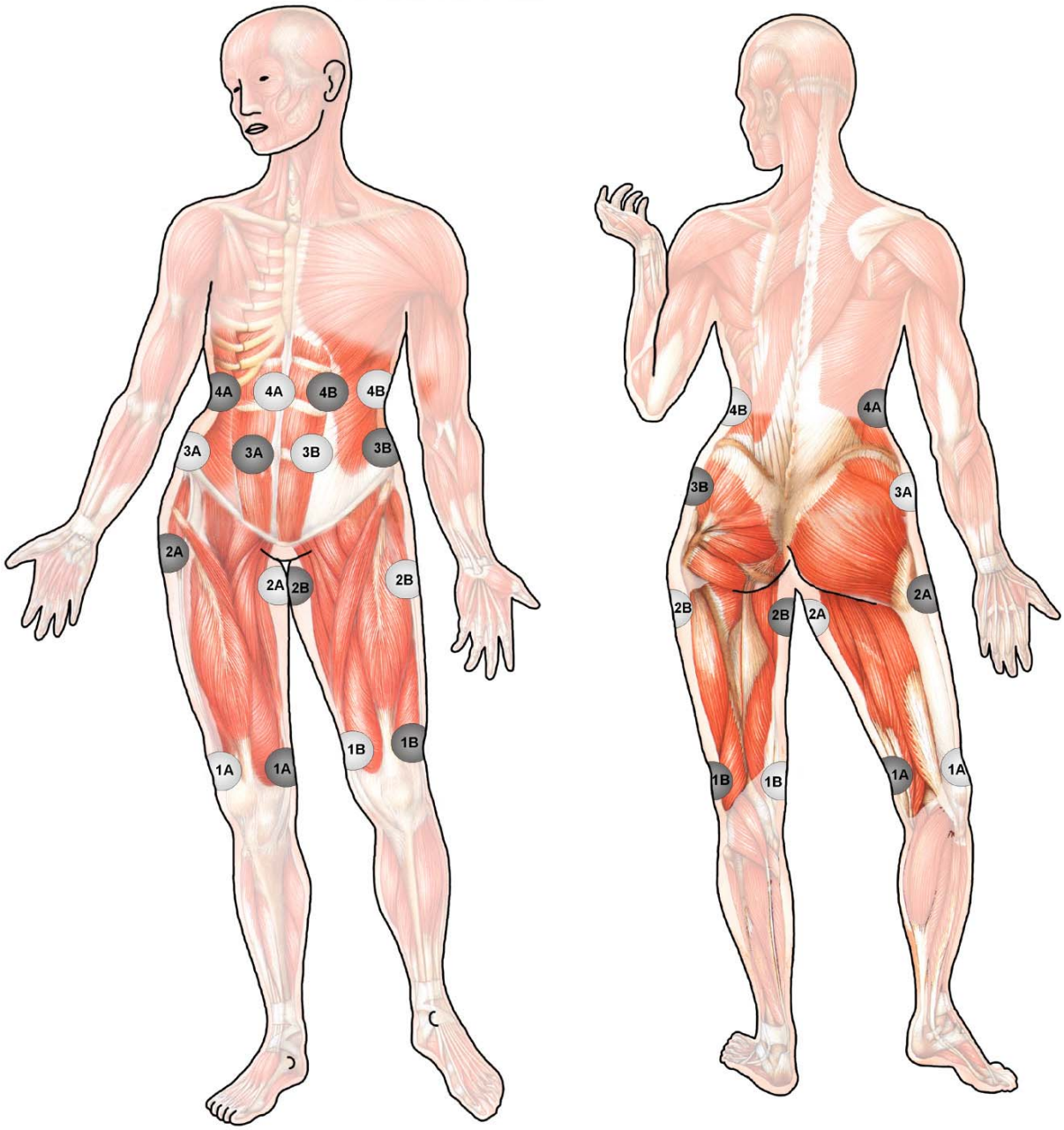
9. S-1A NORMAL PROGRAM: Reduction
10. S-1B NORMAL PROGRAM: Figure
11. S-1C NORMAL PROGRAM: Hips
12. S-1D NORMAL PROGRAM: Buttocks
13. S-1E NORMAL PROGRAM: Abdominal area
14. S-1F NORMAL PROGRAM: Firming
15. S-2 A SEQUENTIAL PROGRAM: Figure
16. S-2B SEQUENTIAL PROGRAM: Elimination

S-1A NORMAL PROGRAM



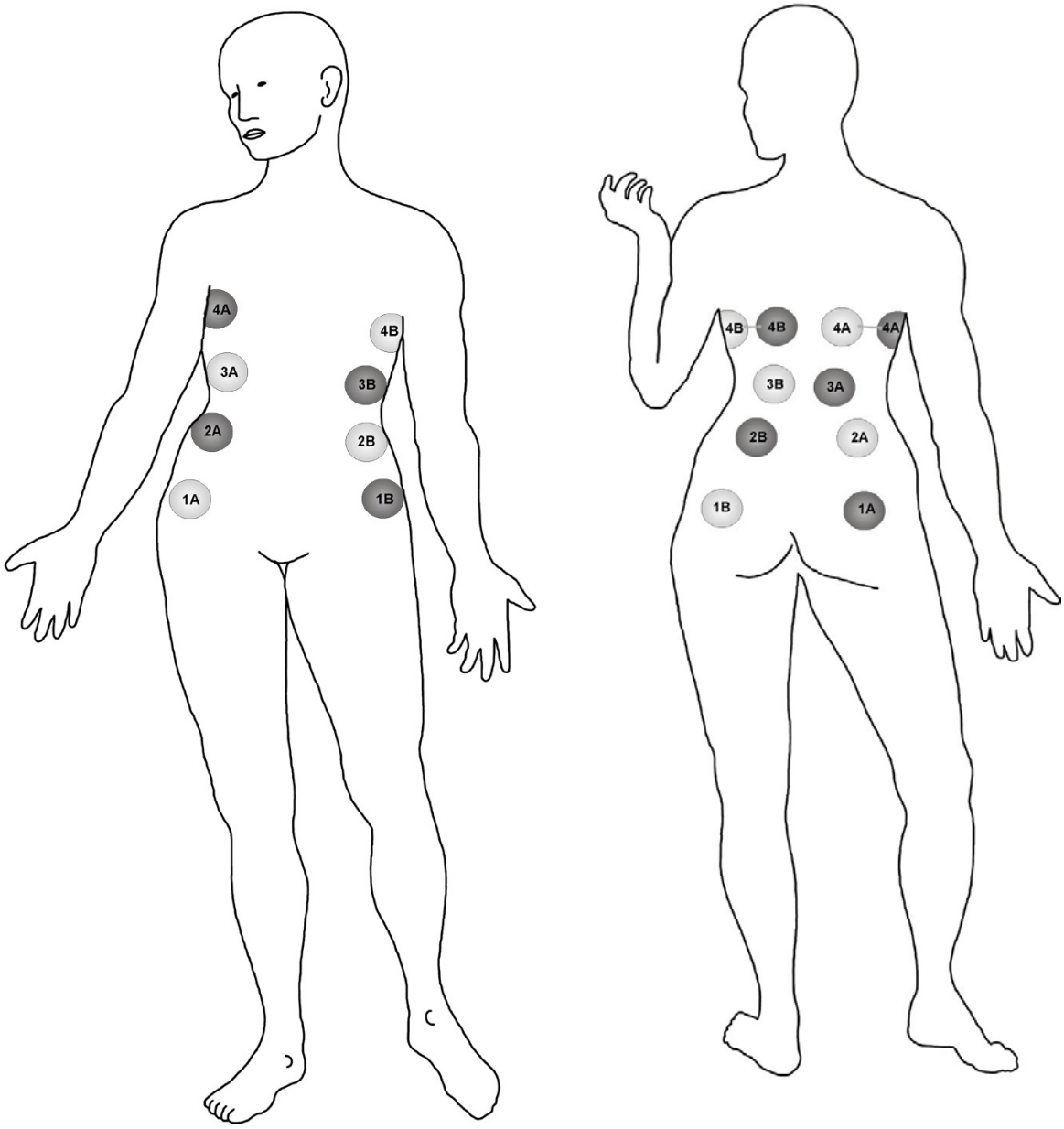
SYSTEM: S-1A.
TREATMENT: Standard.
REDUCTION EFFECT: Waist, belly-hip, thighs, knee.

S-1A NORMAL PROGRAM



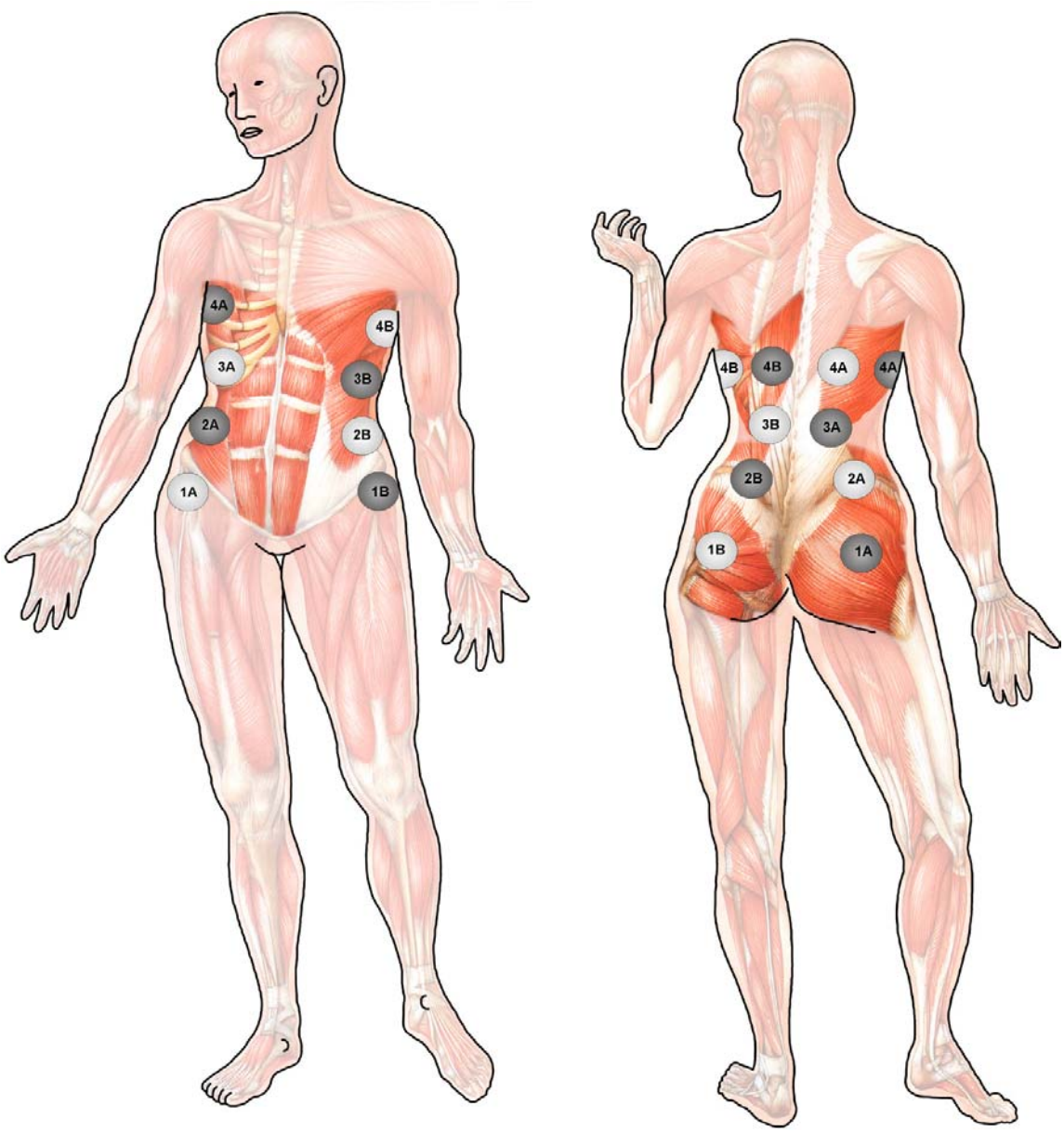
SYSTEM: S-1A.
TREATMENT: Standard.
REDUCTION EFFECT: Waist, belly-hip, thighs, knee.

S-1B NORMAL PROGRAM



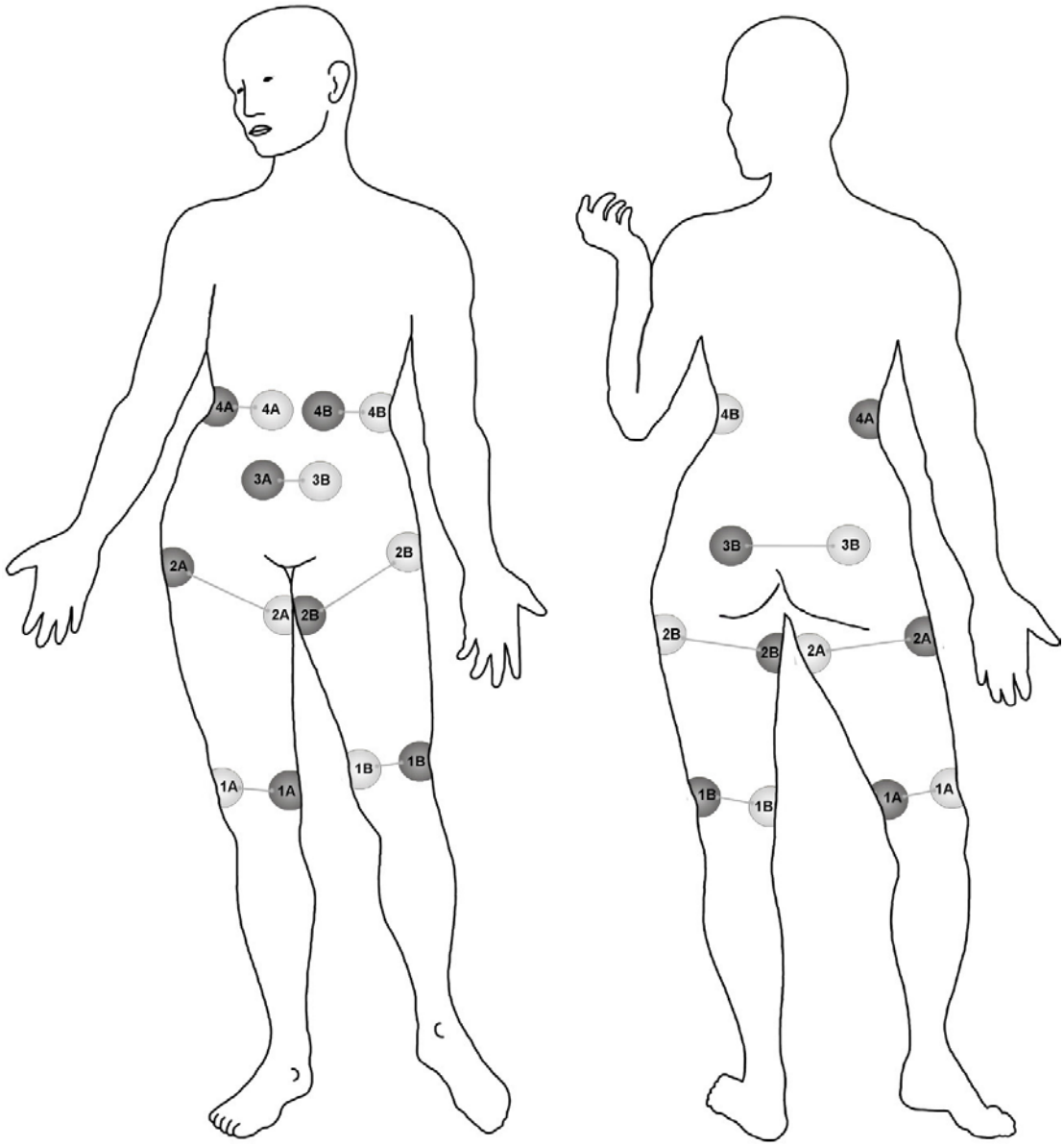
SYSTEM: S-1B.
TREATMENT: Figure.
REDUCTION EFFECT: Underarm-back, belly-hip, abdomen-back, waist.

S-1B NORMAL PROGRAM



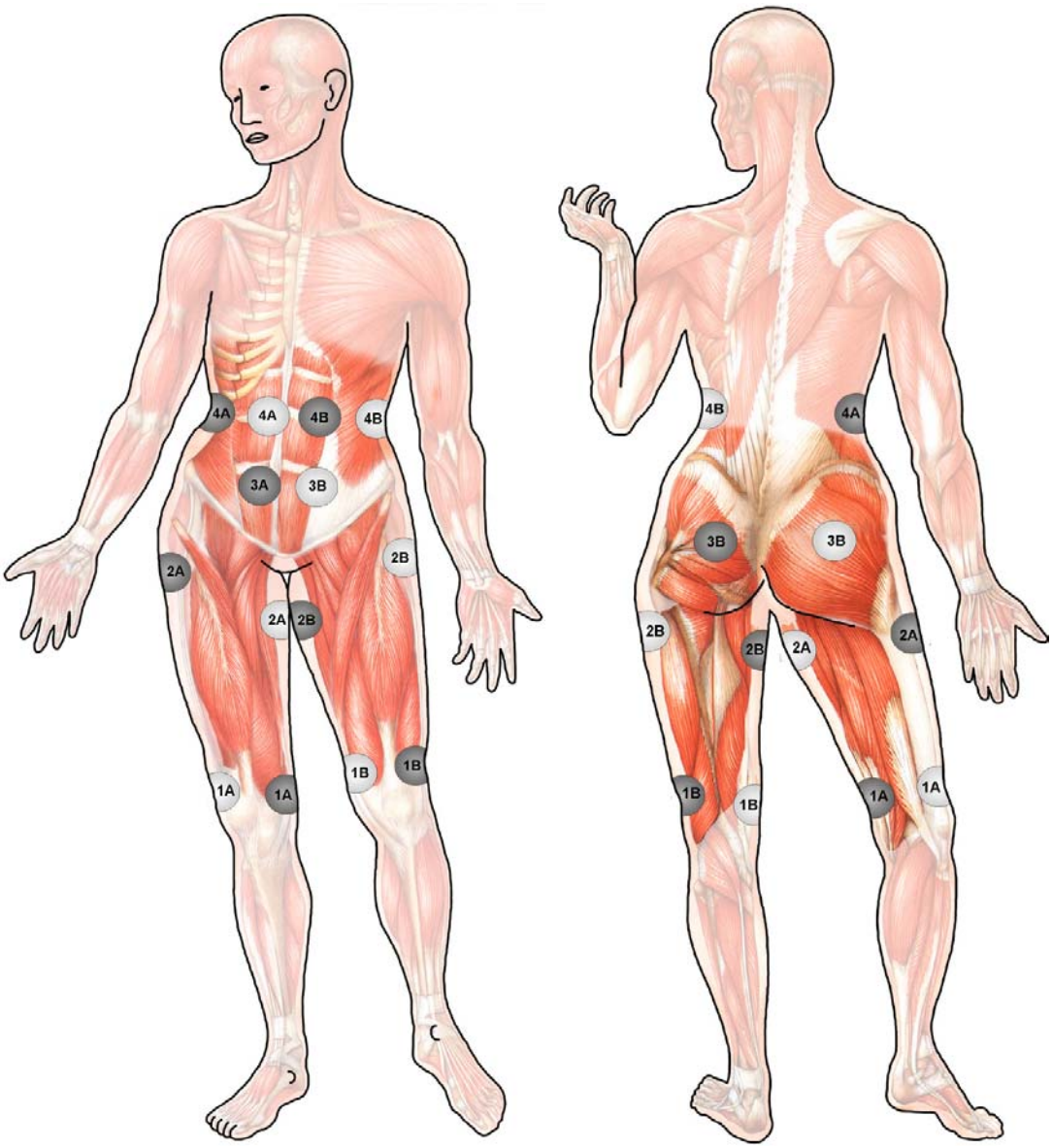
SYSTEM: S-1B.
TREATMENT: Figure.
REDUCTION EFFECT: Underarm-back, belly-hip, abdomen-back, waist.

S-1C NORMAL PROGRAM



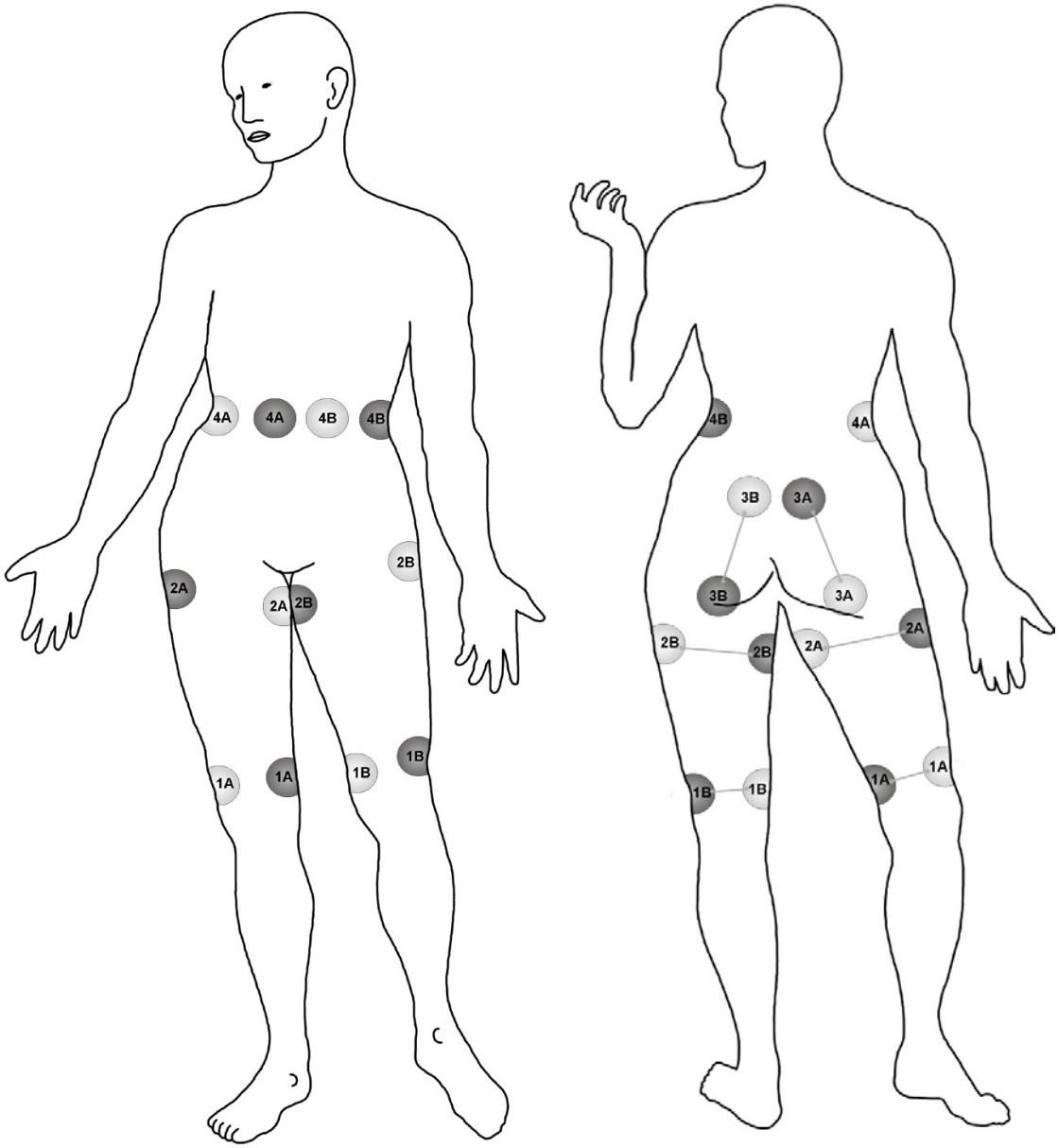
SYSTEM: S-1C.
TREATMENT: Hip.
REDUCTION EFFECT: Belly-hip, thigh, knee, half leg.

S-1C NORMAL PROGRAM



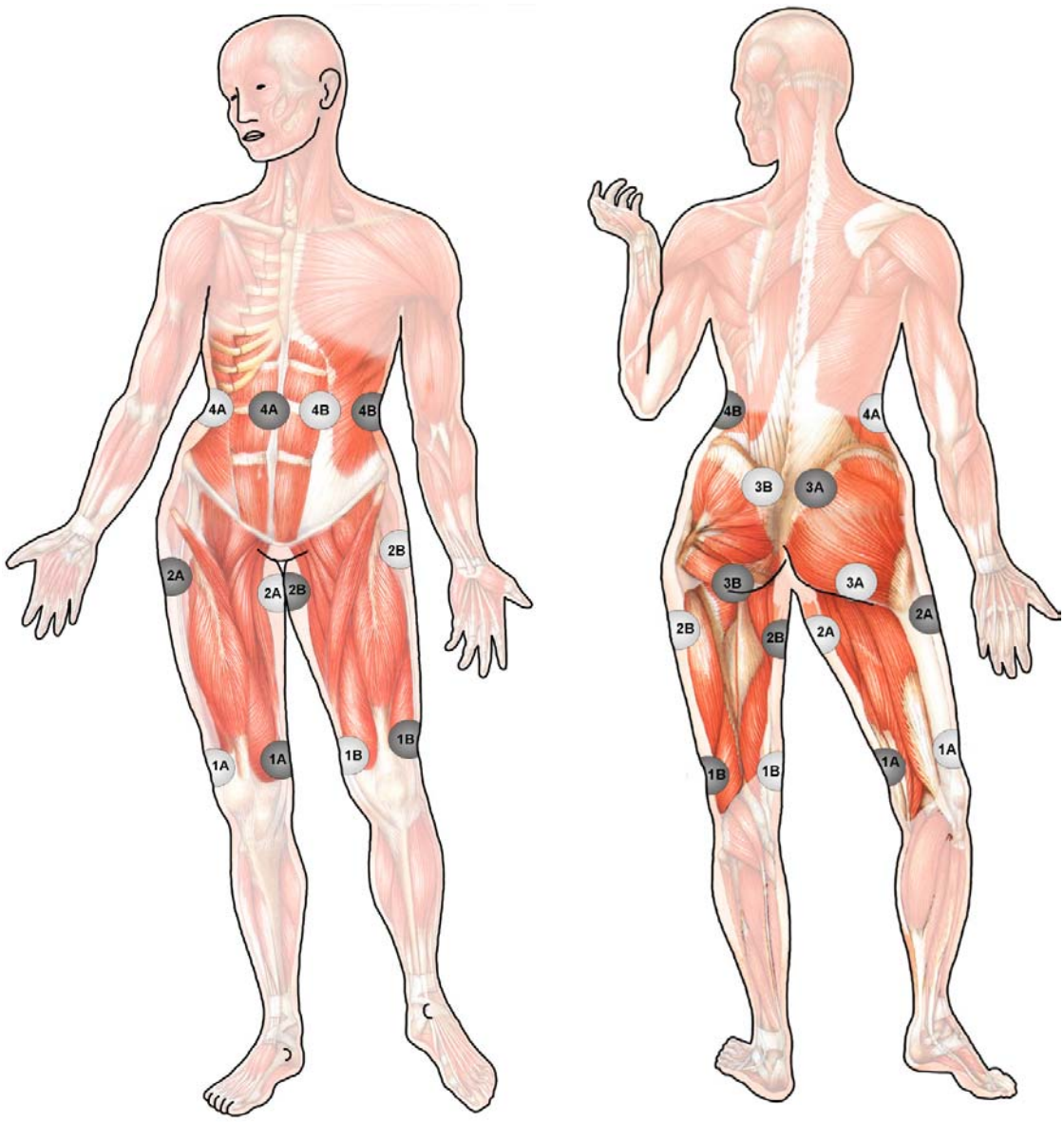
SYSTEM: S-1C.
TREATMENT: Hip.
REDUCTION EFFECT: Belly-hip, thigh, knee, half leg.

S-1D NORMAL PROGRAM



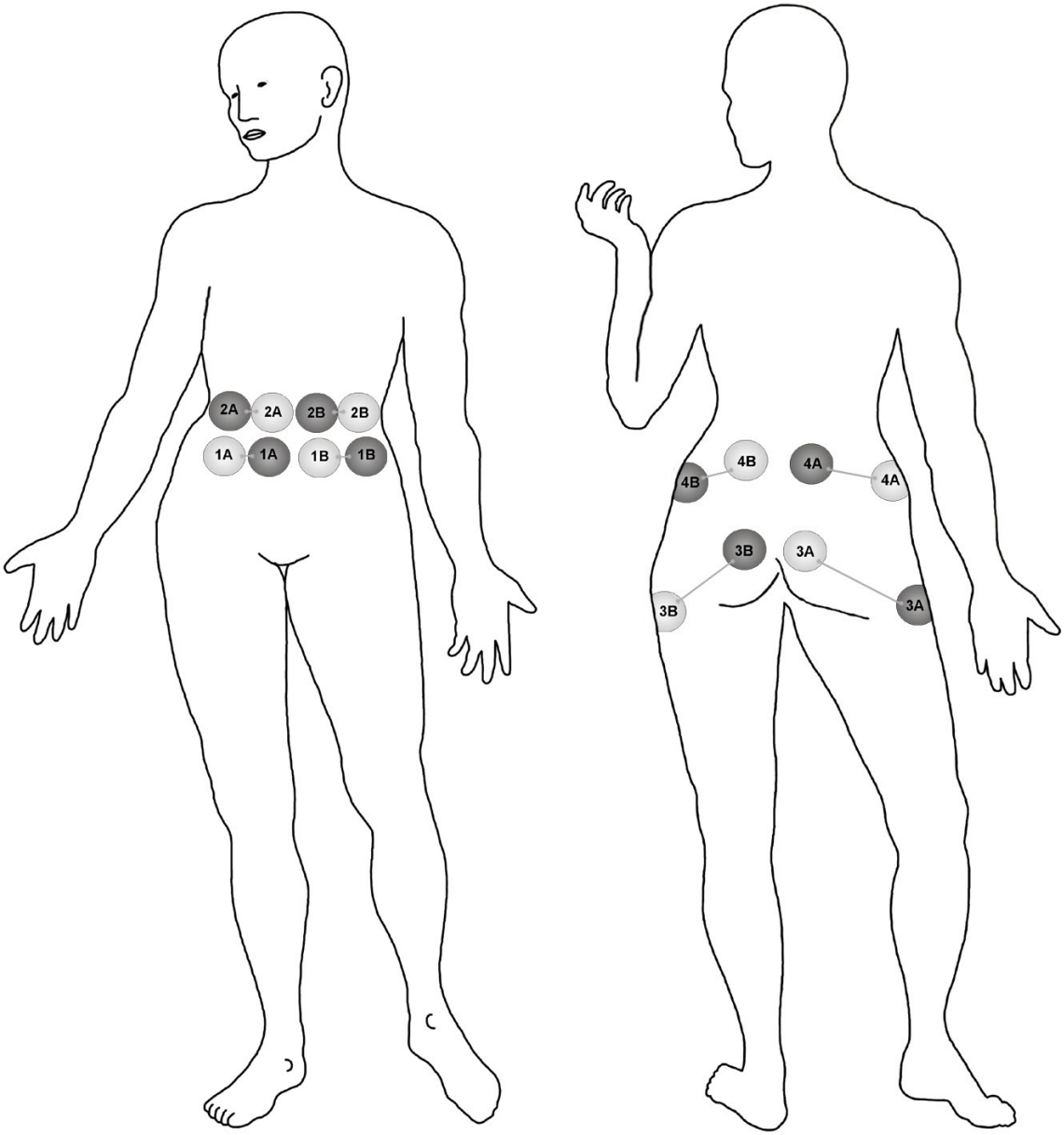
SYSTEM: S-1D.
TREATMENT: Buttocks.
REDUCTION EFFECT: Belly-waist, thigh, buttocks, half thigh

S-1D NORMAL PROGRAM



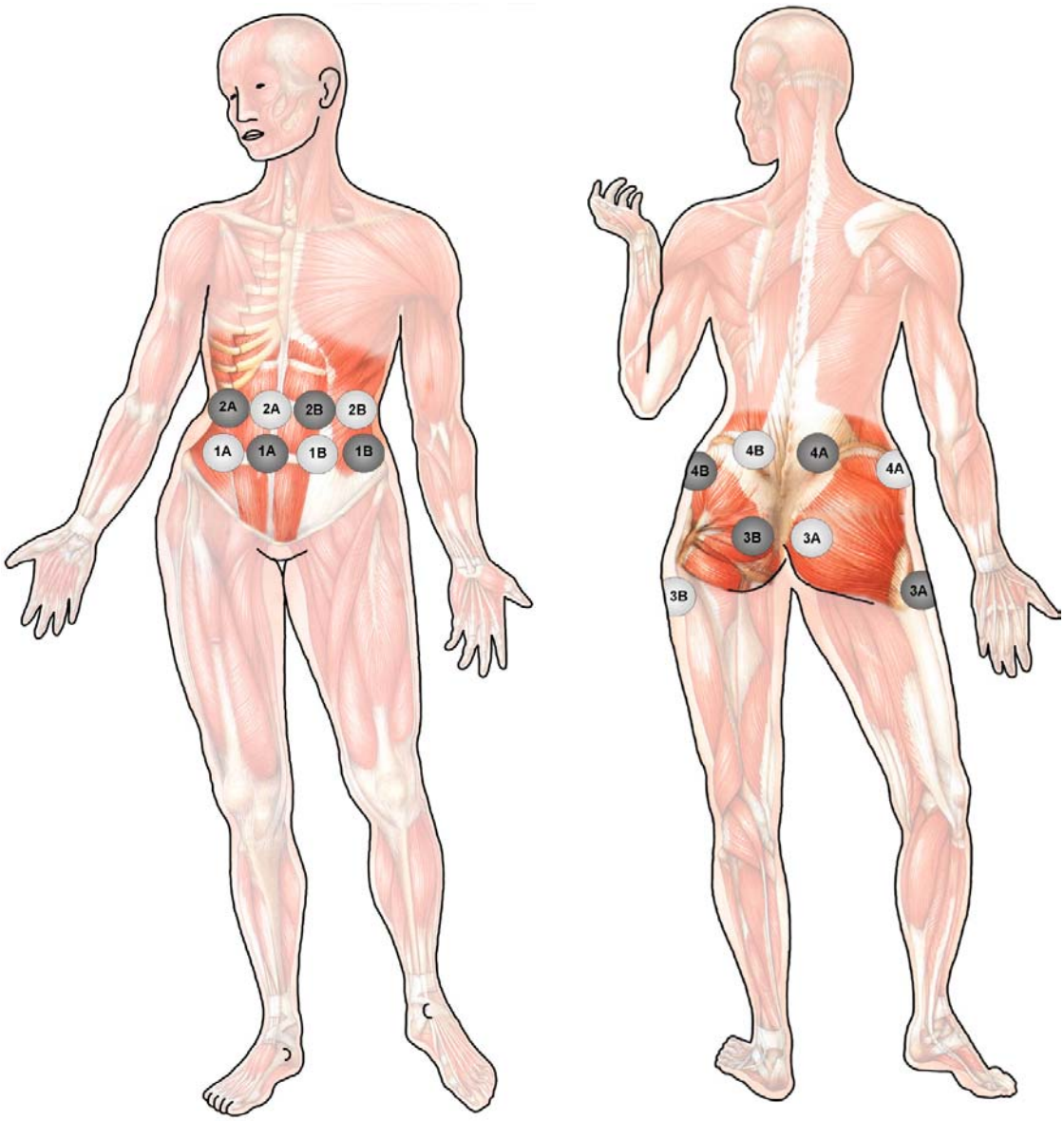
SYSTEM: S-1D.
TREATMENT: Buttocks.
REDUCTION EFFECT: Belly-waist, thigh, buttocks, half thigh

S-1E NORMAL PROGRAM



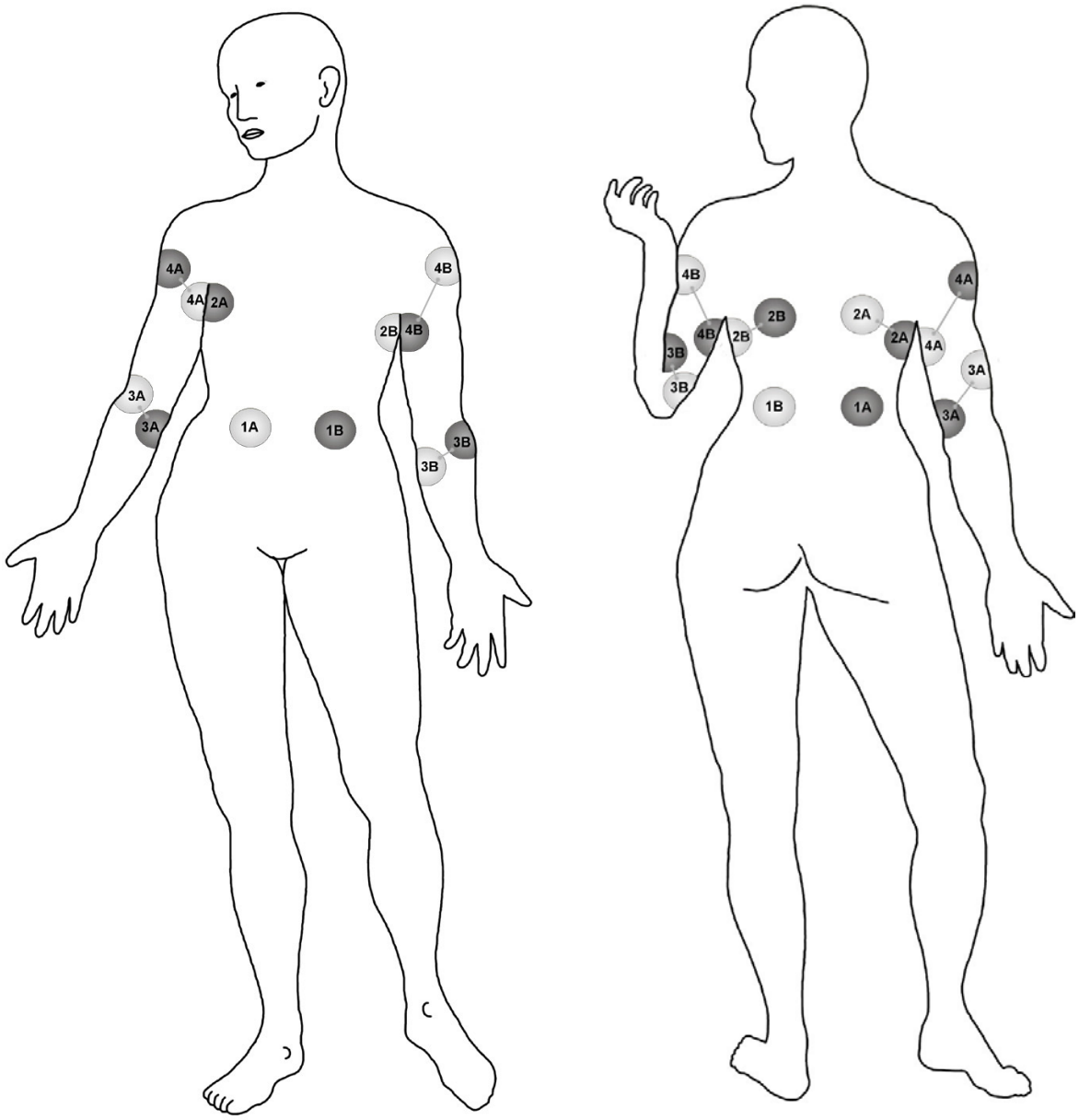
SYSTEM: S-1E.
TREATMENT: Abdominal region.
REDUCTION EFFECT: Abdomen, waist, thigh and lumbar region

S-1E NORMAL PROGRAM



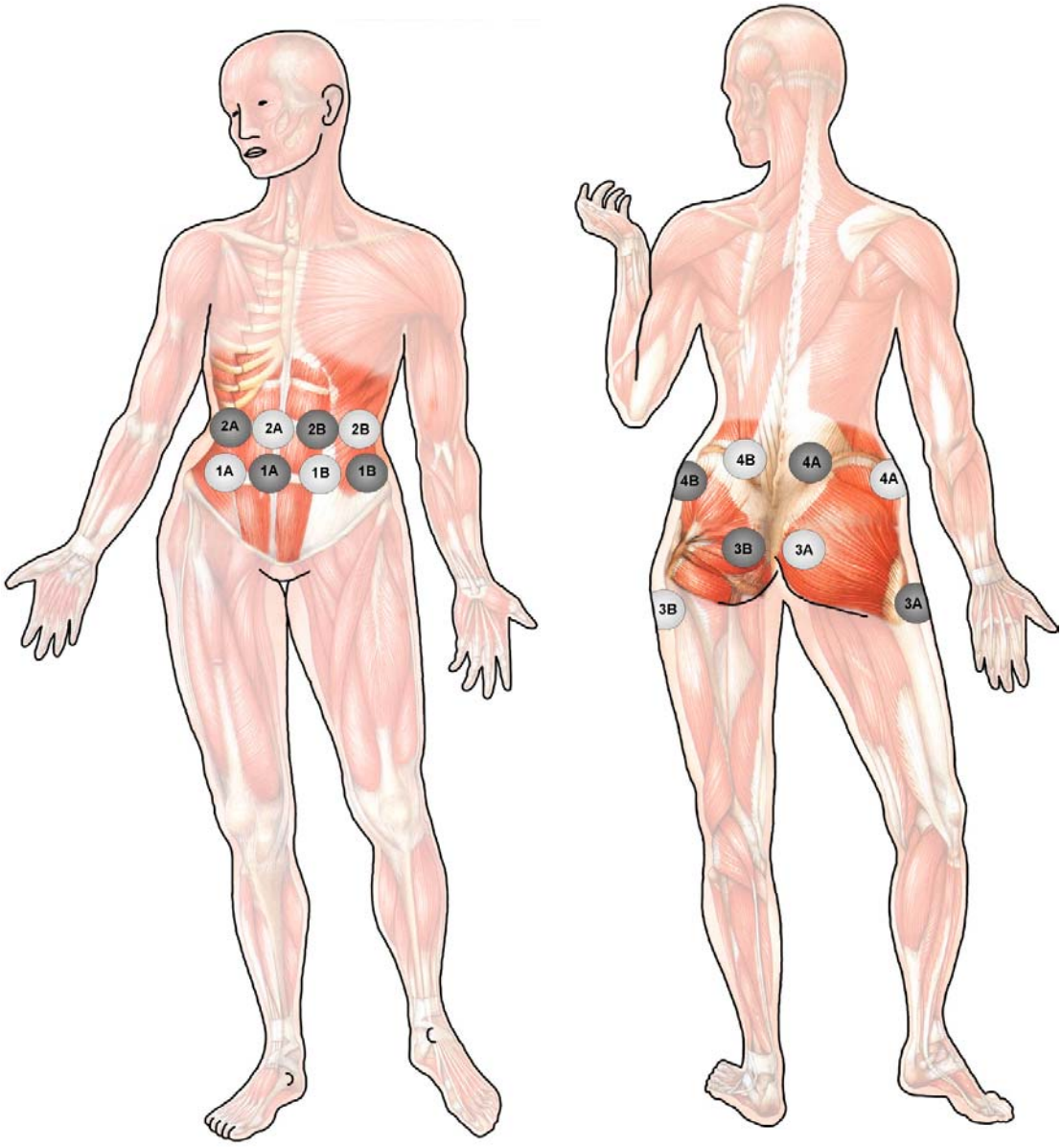
SYSTEM: S-1E.
TREATMENT: Abdominal region.
REDUCTION EFFECT: Abdomen, waist, thigh and lumbar region

S-1F NORMAL PROGRAM



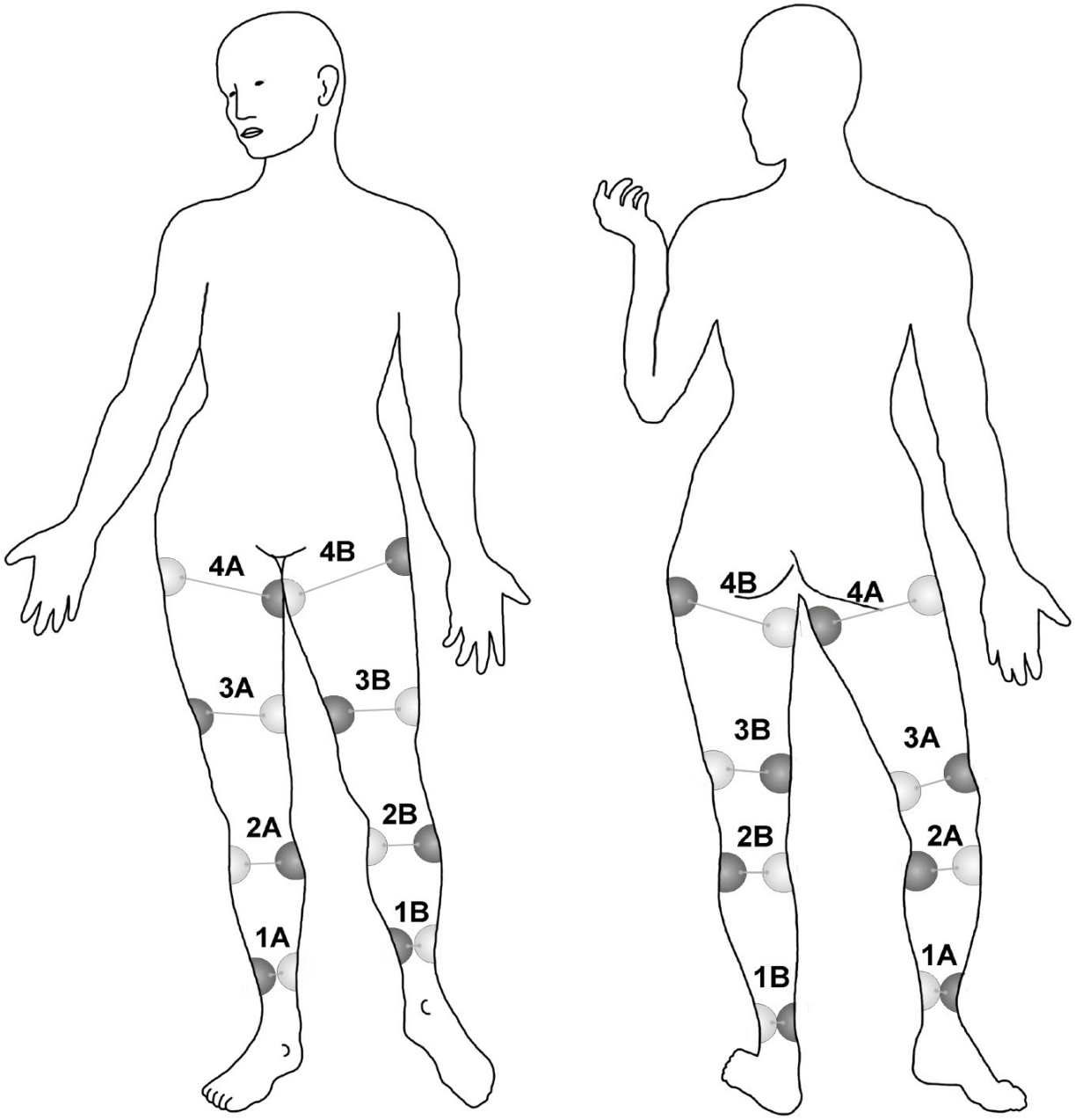
SYSTEM: S-1F.
TREATMENT: Reafirmación.
REDUCTION EFFECT: Back and arms

S-1F NORMAL PROGRAM



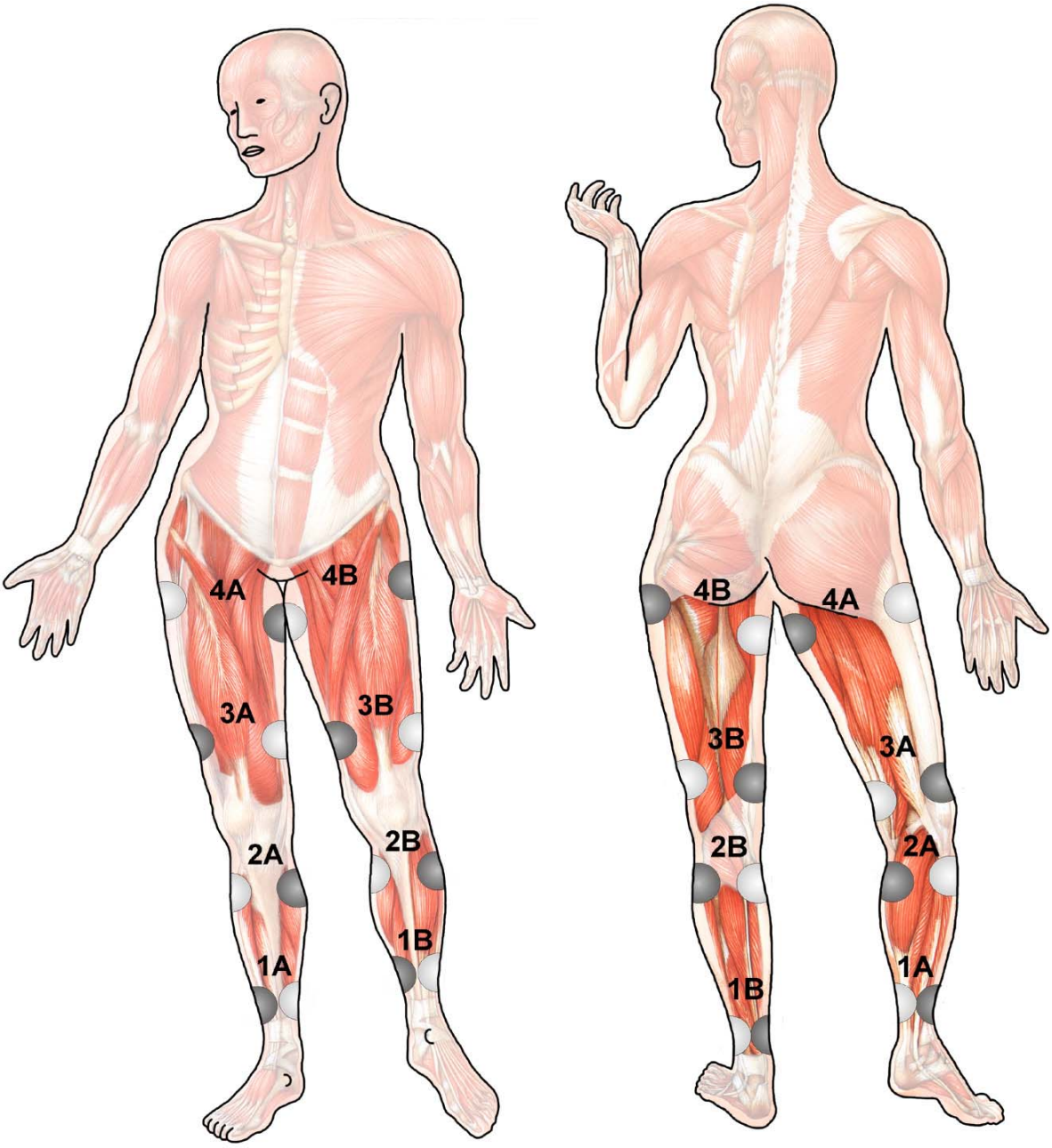
SYSTEM: S-1F.
TREATMENT: Firming.
REDUCTION EFFECT: Back and arms.

S-2A SEQUENTIAL PROGRAM



SYSTEM: S-2A.
TREATMENT: Figure.
REDUCTION EFFECT: Underarm-back, belly-hip, abdomen-back, waist.

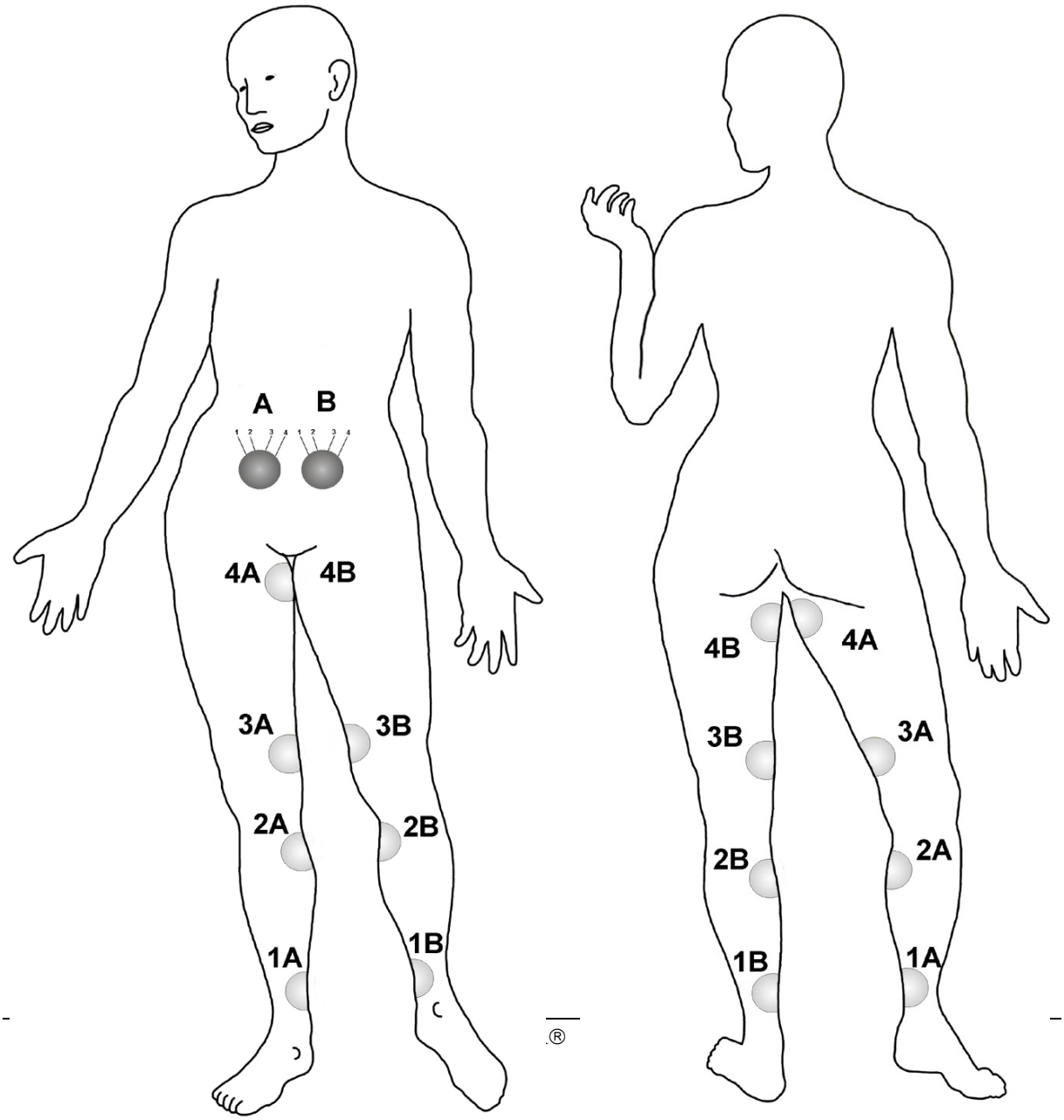
S-2A SEQUENTIAL PROGRAM



SYSTEM: S-2A.
TREATMENT: Figure.
REDUCTION EFFECT: Underarm-back, belly-hip, abdomen-back, waist.

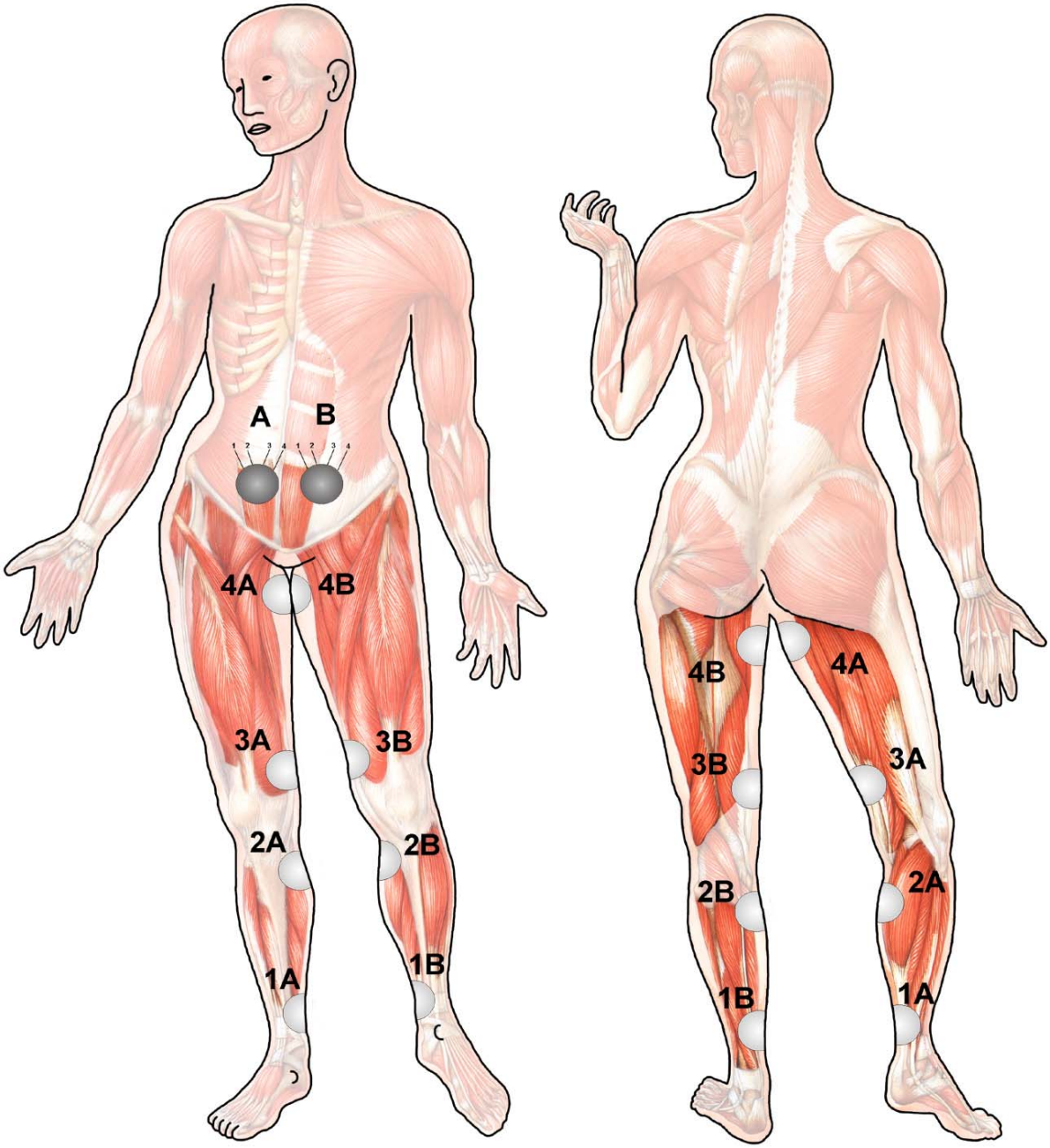
S-2B SEQUENTIAL PROGRAM

IMPORTANT!! Two plates with four outlets are placed on the lower abdomen. Connect the negative cables (black) to these plates, and the positive ones (red) on the legs. If the muscular contraction is excessive and troublesome, invert the cables by placing the negative ones (black) on the legs and the positive ones (black) on the ovarian area.



SYSTEM: S-2B.
TREATMENT: Toxin elimination
REDUCTION EFFECT: Lower extremities and abdominal area.

S-2B SEQUENTIAL PROGRAM

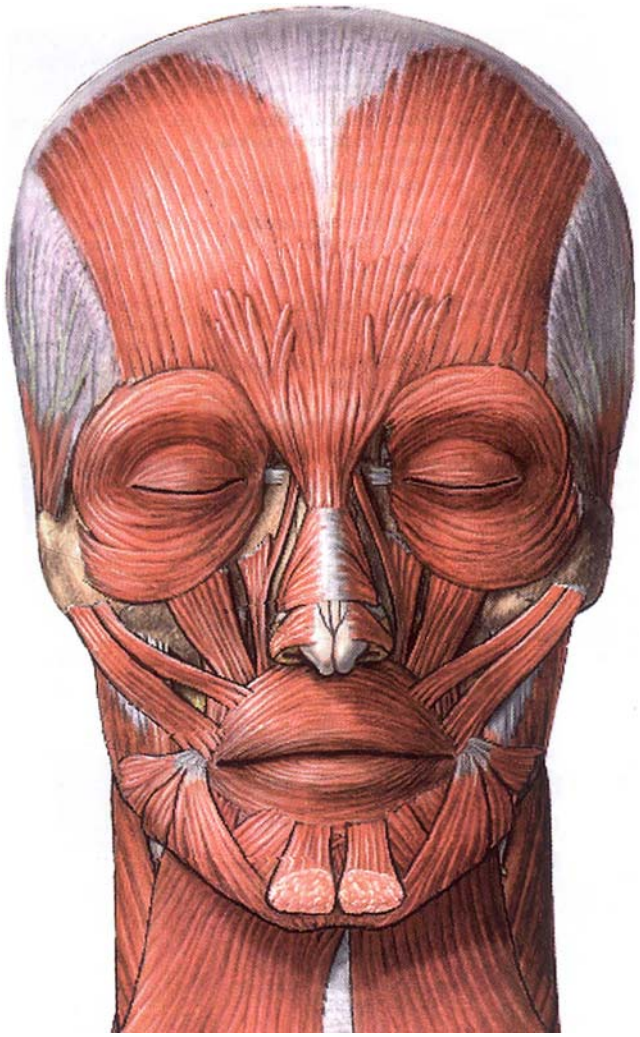


SYSTEM: S-2B.
TREATMENT: Toxin elimination
REDUCTION EFFECT: Lower extremities and abdominal region

FACIAL ANATOMIC ATLAS

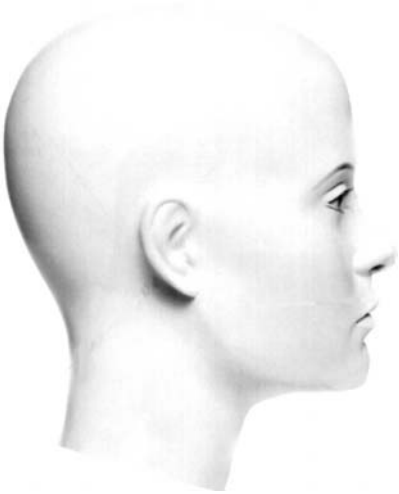
- **Front view**
- **Side view**

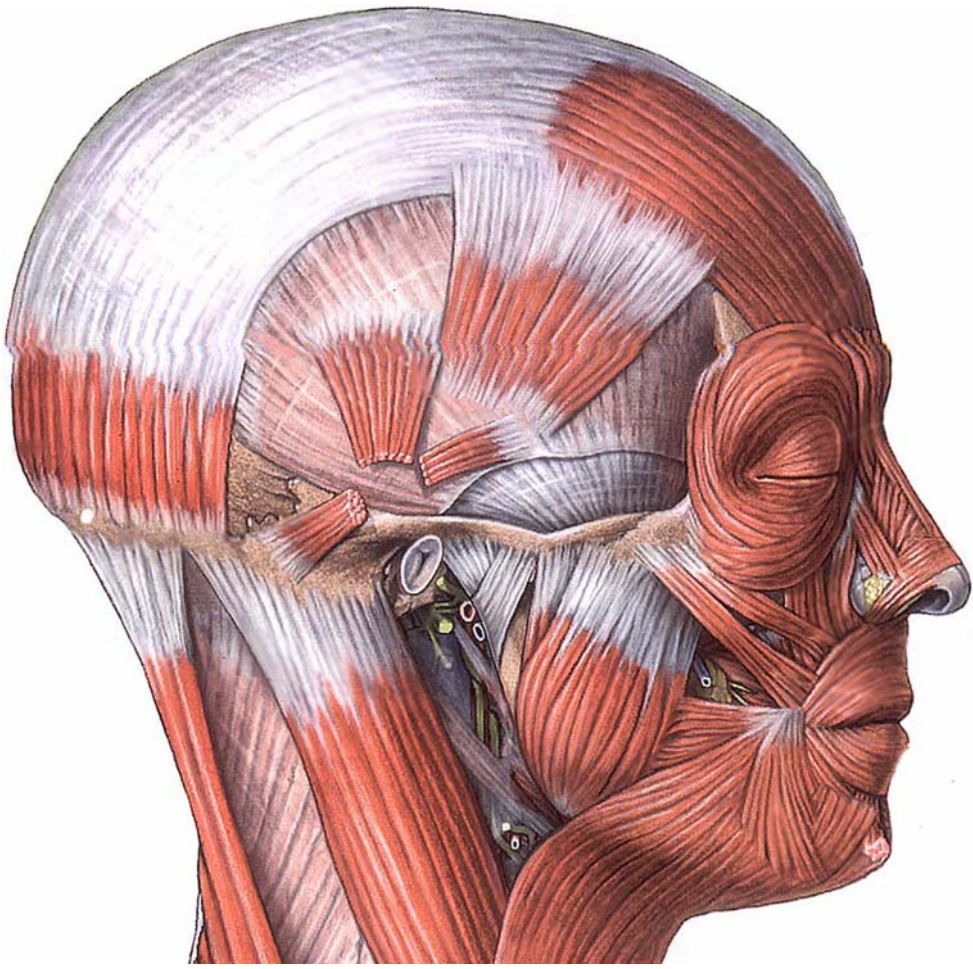
FACIAL ANATOMIC ATLAS



FRONT VIEW

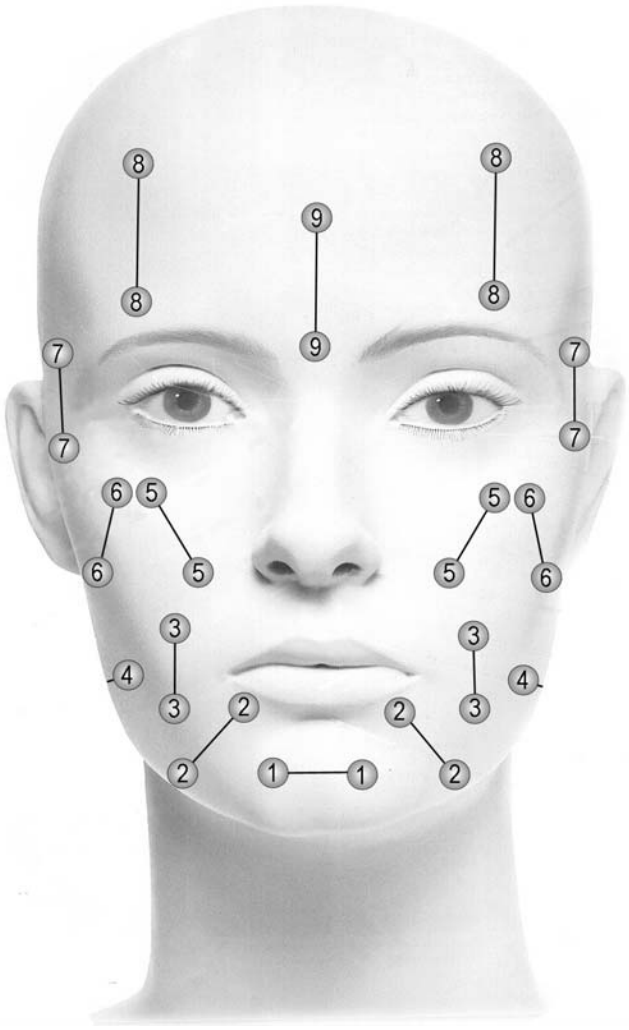
FACIAL ANATOMIC ATLAS





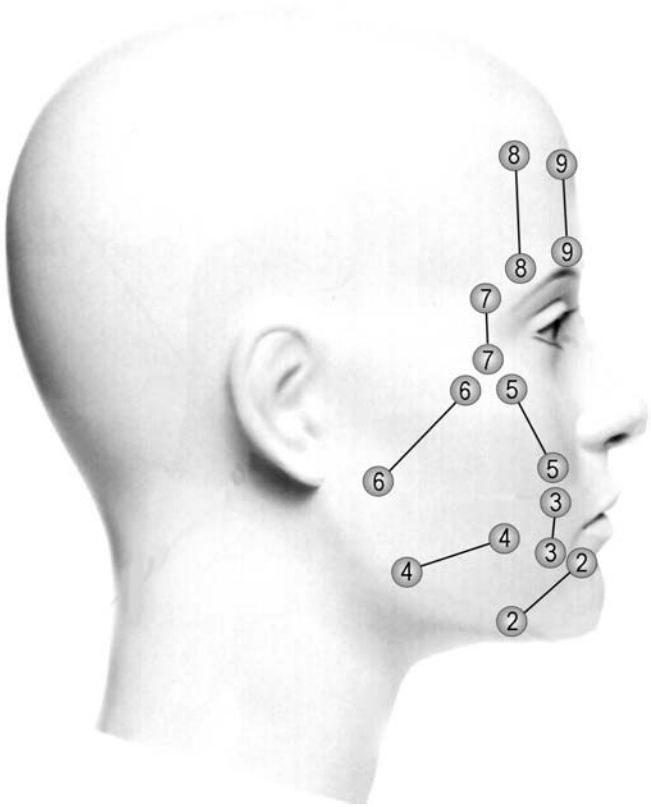
SIDE VIEW

FACIAL FIRMING TREATMENT



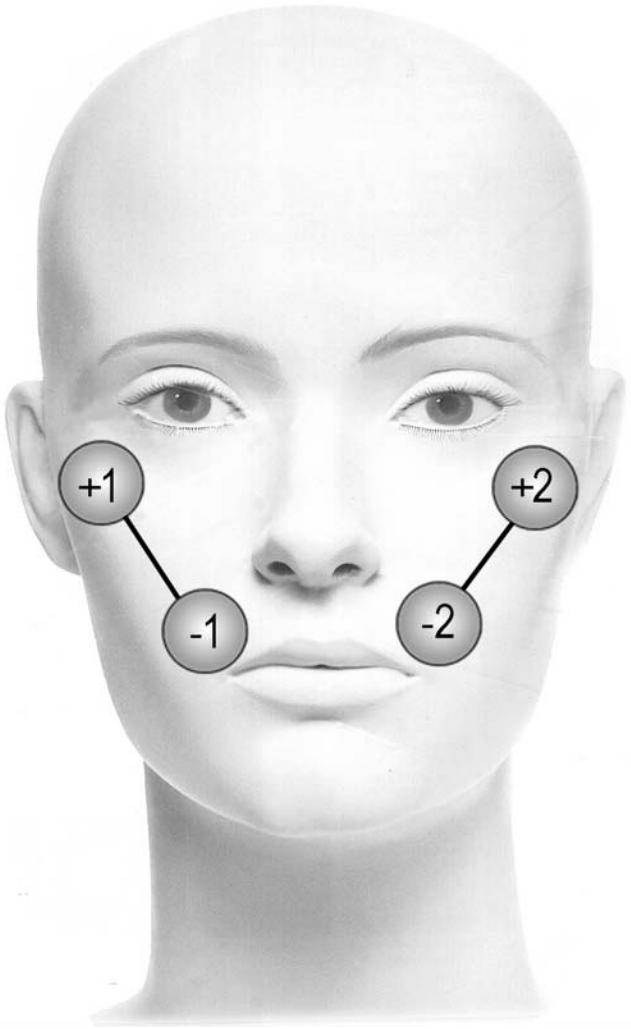
FRONT VIEW

FACIAL FIRMING TREATMENT



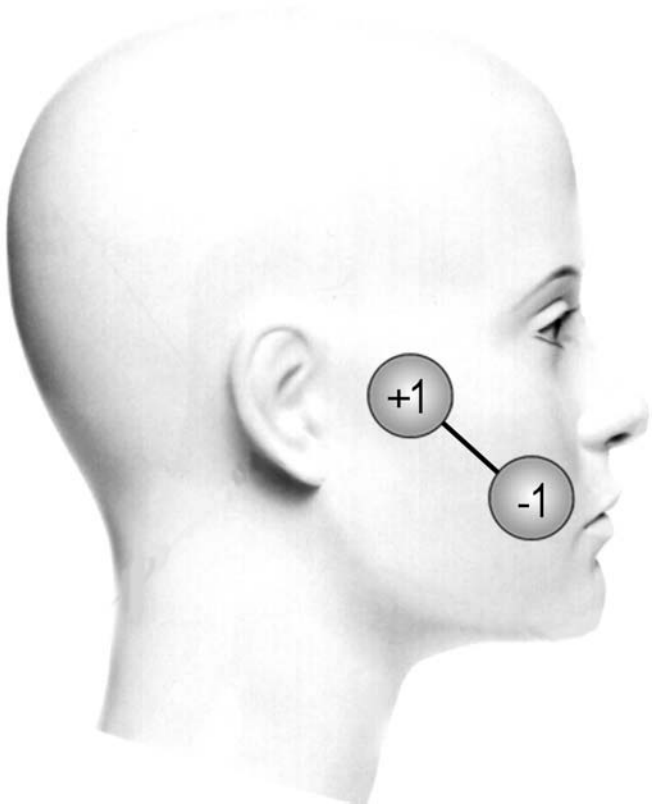
SIDE VIEW

FACIAL FIRMING TREATMENT
(automatic plates)



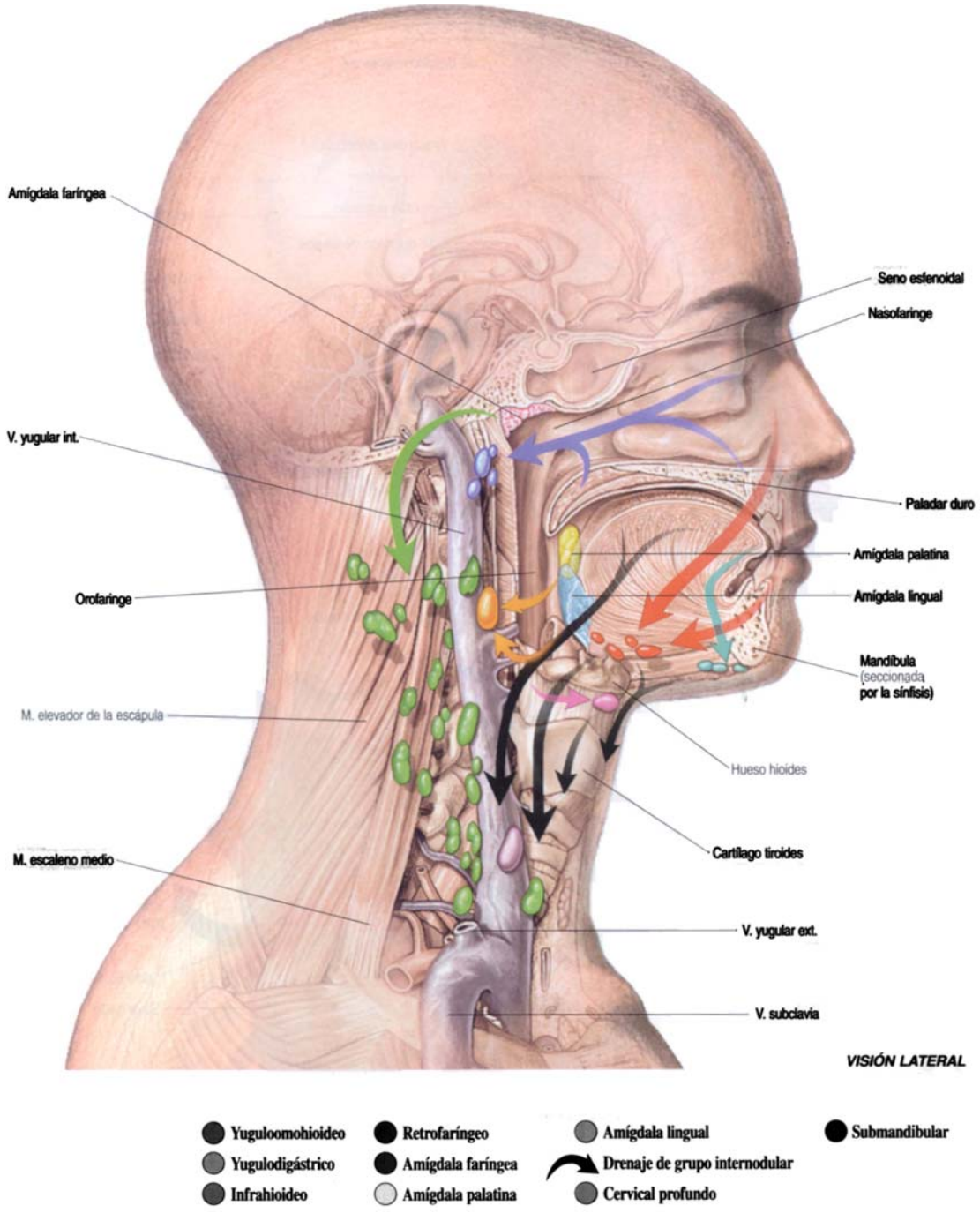
FRONT VIEW

FACIAL FIRMING TREATMENT
(automatic plates)



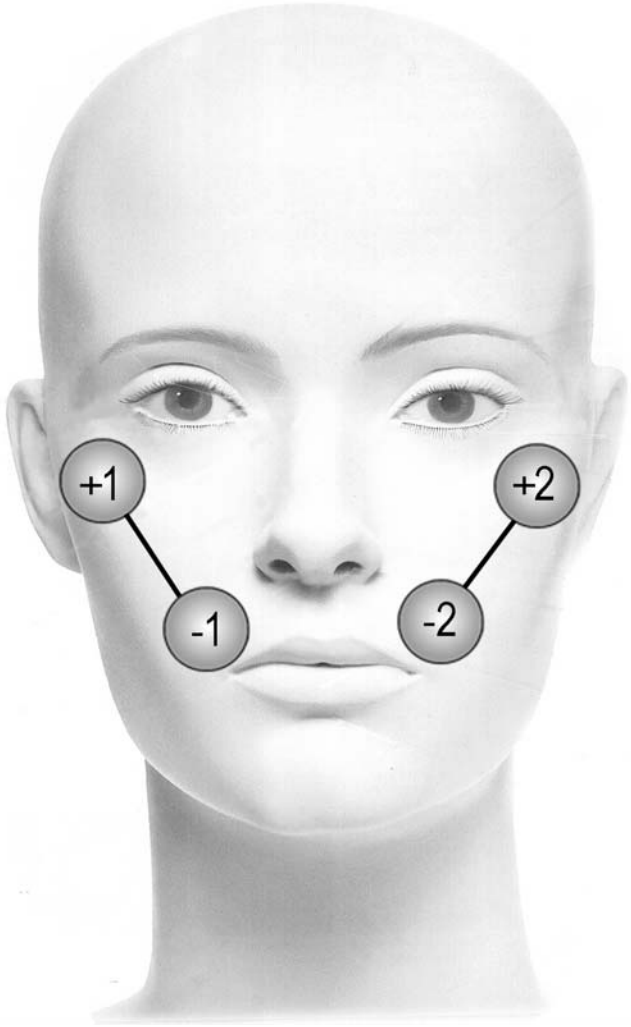
SIDE VIEW

ANATOMIC MAP OF FACIAL TOXIN ELIMINATION



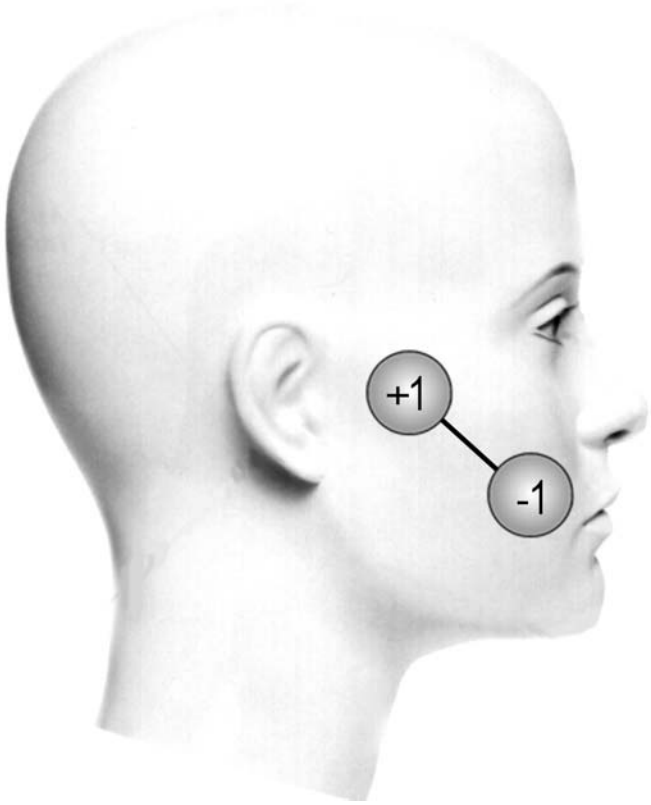
SIDE

FACIAL TOXIN ELIMINATION TREATMENT (automatic plates)



FRONT VIEW

FACIAL TOXIN ELIMINATION TREATMENT (automatic plates)



SIDE VIEW

POSSIBLE TECHNICAL PROBLEMS

1. The machine is not working. Why?

It can be a power cut or the treatment may be temporarily stopped, eliminating the supply of current to the apparatus. As the outlets are open, IMPSEC 5000 activates a safety mechanism that lights up an orange pilot lamp. This light shows that the current is completely sopped until all outlets have been shut and put to zero. This safety system guarantees the total peace of mind of the professional against unexpected power cuts in the electricity supply, safeguarding above all the client's safety.

Also check that the plug is connected properly and that tension reaches the appliance (you can check the presence of current with another equipment). Verify the rear connector and the reliability of the mains cable, using it to connect another appliance. It thus indicates that the problem does not come form the mains cable. Once these verifications are made, the protection fuse may be examined to see if it has not meted. Finally, make sure that the mains voltage corresponds to that of the equipment.

If the pilot light is on but the machine is not working, check with this start up manual that the operation process is the right one. If the problem persists, consult the technical department.

2. An outlet is not functioning. What is happening?

If an outlet is not functioning properly or not functioning at all, it can mean that the cable has been cut internally, which blocks the current output. The problem is solved by replacing the cable by a new one.

3. The client has no electrical sensation. What can it be?

Make sure that the plates are correctly soaked with conductor gel and are homogenously adapted to the client's skin. The lack of a proper contact can produce the absence of electric transmission.

GUARANTEE AND SAFETY

1. The manufacturer is not responsible for an improper use of this machine, or for the consequences derived from it. Any use not included in this instruction manual can be dangerous. We therefore ask you to consult your nearest authorised distribution centre for any doubt.

2. Our wish to include possible improvements in our appliances compels us to reserve the right to modify the characteristics of our equipments without prior notice.

3. All equipments are provided for a **mains voltage** of 230 volts. If you require a voltage of 125V, notify it to your provider at the time of the order.

4. As MANUFACTURERS we offer a 24-month **guarantee** on our equipments against any manufacturing fault.

   In order for this guarantee to be efficient, the following technical **specifications** must be taken into account:

   4.1. Minimum specifications in the electrical installation:

   - The equipment must always be connected to the electrical current by means of a voltage regulator with ground point, whose output voltage must be included between 110 and 120 volts, in the case of installations with this voltage (particularly in Latin-American countries) or 220 and 230 volts in European countries.

   - The socket where the equipment is connected must be in perfect conditions.

   4.2. This guarantee **becomes invalid** if:

A. The equipment is used **improperly**.
B. The electrical installation or the regulator connected to the equipment are **defective**.
C. The equipment is exposed to **overloads**, short-circuits, electrical discharges, floods or other similar unforeseeable circumstances.
D. The equipment is **handled** or **repaired** by staff non authorised by EMA.

DECLARACIÓN DE CONFORMIDAD

DECLARATION OF CONFORMITY
DECLARATION DE CONFORMITÉ
89/336/CEE
73/23/CEE

MARZO 2003
MARCH 2003
MARS 2003

Electroestética & Mobiliario

CE

***Nombre del Fabricante*:** **BIOINSIDE INVESTIGACIÓN Y TECNOLOGÍA, S.L.**
Manufacturer's name:
Nom du fabricant :

Dirección del Fabricante:
Manufacturer's address: **Sant Martí de l´Erm, 22**
Adresse du fabricant : **E 08970 – Sant Joan Despí**
BARCELONA - SPAIN

Declara que el producto: ***Electrocosmético***
Declares that the product: **Electrocosmetic**
Déclare que le produit : Electro-cosmétique

Nombre del producto: IMPSEC 5000
Name of the product:
Nom du produit :

Marca: EMA
Brand:
Marque :

Cumple con la normativa:
Complies with the norm:
Est conforme à la norme :

Seguridad Eléctrica: CLASS I TYPE BF
Electrical Security: UNE EN 60601
Sécurité électrique :

Compatibilidad Electromagnética:
Electromagnetic Compatibility:
Compatibilité électromagnétique :

EN 61000-3-2, EN 61000-3-3, EN 50081-1, EN 55011, EN-5002-1, EN 61000-4-2, EN 61000-4-2, EN 61000-4-3 + ENV 50204, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8, EN 61000-4-11.

Signed: Pilar Sánchez

MANUFACTURER'S NOTE:

Our wish to offer to the aesthetic sector equipments that keep adapting to the requirements of this young profession leads us to conceive new equipments and to try and improve those already existing. For this reason we are compelled to reserve the right to modify these specifications without prior notice.

All equipments are intended for a mains voltage of 230 V. If you require it for a voltage of 125 V, please inform your supplier at the time of order.

The inappropriate use – not included in this instruction manual – from the beauty professional can have undesirable results. The manufacturer is not responsible for the results derived from an improper use of the machine.

SUGGESTIONS:

Your opinion is important to us. You can send your comments and suggestions to get a better service day after day. You can write at the following address:

EMA

BIOINSIDE INVESTIGACIÓN Y TECNOLOGÍA, S.L.
REGISTRATION No: B60829793

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NOTES AND COMMENTS

EMA

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